

Appendix B

Sediment Coring Logs

RAM**ENVIRONMENTAL** One Roberts Road
REMEDIALTION • ASSESSMENT • MANAGEMENT Plymouth MA 02360**BORING ID** RAM-SA-1

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WELL ID _____**Project #** 206.2.2**Date Started** 3/30/98 **Date Finished** 3/30/98**Project Name** New Bedford/Com Gas**Client**

ComGas

Drilling Co.

SoilEx

Address 180 MacArther Drive**Address**

2421 Cranberry Highway

Drill Method

Drive and Wash

Driller

Brad, Mike, Dave

City

New Bedford, MA



City

Wareham, MA

RAM Engineer

J.M.

CASING
Type N/A
Size 4" ID
Hammer 250 lbs
Fall 30 inch**SAMPLER**
Type Split-spoon
Size 2'-2" OD
Hammer 140 lbs
Fall 30 inch**GROUNDWATER**
Date N/A
WL (ref.) N/A
WL (bgs.) N/A
GW Elev. N/A**CORE**
Type N/A
Size N/A
Length N/A**SURVEY**
Lat. N/A
Long. N/A
Elev. (ft) N/A

| Sample ID | Depth (feet) | Blow Count | Recovery (in) | PID (ppmv) | Lithology | Classification | Description | Well Completion | Depth (feet) |
|-----------|--------------|-------------|---------------|------------|---|----------------|---|-----------------|--------------|
| | 5 | | | | | | | | 5 |
| | 10 | | | | | | | | 10 |
| | 15 | | | | | | | | 15 |
| | 20 | | | | | | | | 20 |
| | 25 | | | | | | | | 25 |
| 9/11 | 29.5 | 11,18,31,50 | 24" | 84.0 |  | SM | Water/sediment interface at 19' | | |
| 11/13 | 30 | 140/3" | 6" | 57.1 |  | GP | Black, coal tar residual, silty sands, sands-silt mixture. Slight petroleum odor. Orangish/black brittle rock. Poorly graded gravels, gravel-sand mixtures, little or no fines. slight sheen on sampler observed | | 30 |

NOTES:

BORING ID RAM-SA-2

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WELL ID _____ **Project #** 206.2.2

Date Started 3/31/98 **Date Finished** 3/31/98

| | | | | | |
|---------------------|---------------------|----------------|------------------------|---------------------|------------------|
| Project Name | | Client | COMGas/Witco | Drilling Co. | SoilEx |
| Address | 180 MacArther Drive | Address | 2421 Cranberry Highway | Drill Method | Drive and Wash |
| | | | Wareham, MA | Driller | Brad, Mike, Dave |
| City | New Bedford, MA | City | Greenwich, CT, | RAM Engineer | J.M. |

| | | | | | | | | | |
|---------------|--------|----------------|-------------|--------------------|---------|-------------|-----|---------------|--|
| CASING | | SAMPLER | | GROUNDWATER | | CORE | | SURVEY | |
| Type | Steel | Type | Split-spoon | Date | 3/31/98 | Type | N/A | Lat. | |
| Size | 4" ID | Size | 2'-2" OD | WL (ref.) | N/A | Size | N/A | Long. | |
| Hammer | 300 lb | Hammer | 140 lbs | WL (bgs.) | N/A | Length | N/A | Elev. (ft) | |
| Fall | 30" | Fall | 30 inch | GW Elev. | N/A | | | | |

| Sample ID | Depth (feet) | Blow Count | Recovery (in) | PID (ppmv) | Lithology | Classification | Description | Well Completion | Depth (feet) |
|-----------|--------------|-------------|---------------|------------|-----------|----------------|---|-----------------|--------------|
| | 5 | | | | | | | | 5 |
| | 10 | | | | | | | | 10 |
| | 15 | | | | | | | | 15 |
| | 20 | | | | | | Water/sediment interface at 19' | | 20 |
| *0/2 | 20 | WOS | 6" | 73.5 | | SM | Black coal tar residual, silty sands, sands-silt mixture. Petroleum odor observed. Sheen on sampler observed. | | 20 |
| 2/4 | 21 | 13,17,23,32 | 24" | 43.9 | | SM | Grayish black silty-sands, sand-silt mixture. Petroleum odor observed. | | 21 |
| 4/6 | 24 | 7,14,51,14 | 6" | 30.5 | | SW | Grayish black well graded sands, gravelly sands, little or no fines. Sheen on sampler observed. | | 24 |
| 6/8 | 26 | 23,26,26,26 | 6" | 156 | | SW | Gray black well graded sands, gravelly, sheen observed. | | 26 |
| 8/10 | 28 | 40,59,53,42 | 6" | 47.1 | | SP | Gray poorly-graded sands, gravelly sands little or no fines saturated with a petroleum odor. Light sheen on sampler observed. | | 28 |
| *10/12 | 30 | 46,58,62,50 | 6" | 63.3 | | SP | Saturated gray poorly-graded sands, gravelly sands, little or no fines. Petroleum like odor and sheen observed. | | 30 |
| | 35 | | | | | | | | 35 |

NOTES: WOS-Weight Of Spoon *Sample submitted for laboratory analysis

RAM

ENVIRONMENTAL

REMEDIAL • ASSESSMENT • MANAGEMENT One Roberts Road
Plymouth, MA 02360

BORING ID RAM-SA-3

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WELL ID

Project # 206.2.2

Date Started 3/31/98 **Date Finished** 3/31/98

| | | | |
|---------------------|----------------|---------------------|-----------------------|
| Project Name | Client | Drilling Co. | SoilEx |
| Address | Address | Drill Method | Drive and Wash |
| City | City | Driller | RAM Engineer |

| | | | | |
|----------------------|-------------------------|----------------------|-------------------|--------------------|
| CASING | SAMPLER | GROUNDWATER | CORE | SURVEY |
| Type <u>Steel</u> | Type <u>Split-spoon</u> | Date <u>3/31/98</u> | Type <u>N/A</u> | Lat. <u></u> |
| Size <u>4" ID</u> | Size <u>2'-2" OD</u> | WL (ref.) <u>N/A</u> | Size <u>N/A</u> | Long. <u></u> |
| Hammer <u>300 lb</u> | Hammer <u>140 lbs</u> | WL (bgs.) <u>N/A</u> | Length <u>N/A</u> | Elev. (ft) <u></u> |
| Fall <u>30"</u> | Fall <u>30 inch</u> | GW Elev. <u>N/A</u> | | |

| Sample ID | Depth (feet) | Blow Count | Recovery (in) | PID (ppmv) | Lithology | Classification | Description | Well Completion | Depth (feet) |
|-----------|--------------|-------------|---------------|------------|-----------|----------------|--|-----------------|--------------|
| | 5 | | | | | | | | 5 |
| | 10 | | | | | | | | 10 |
| | 15 | | | | | | | | 15 |
| | 20 | | | | | | | | 20 |
| *0/2 | 20 | WOS | 24" | 1594 | | SM | Water/sediment interface at 19' | | 20 |
| 2/4 | | WOS | 12" | 1382 | | SM | Black, coal tar residual, silty sands, sand-silt mixture. Heavy sheen observed. | | |
| 4/6 | 25 | 29,16,20,27 | 24" | 811 | | SM | Black, coal tar residual, silty sands, sand-silt mixture. Heavy sheen observed. | | |
| *6/8 | | | | | | | 0-18" Black, coal tar residual silty sands, sand-silt mixture. Petroleum odor and sheen observed. | | |
| 8A | | 30,107 | 24" | 755 | | SM | 18-24" Well graded sands, gravelly along with fine silty sands. Petroleum odor and sheen observed. | | 25 |
| | | | | 658 | | SM | 0-6" Black coal tar residual, silty sands, sand-silt mixture. Petroleum odor and sheen observed. | | |
| | | | | | | | 6-24" Well graded sands, gravelly, along with fine silty sands petroleum odor observed. | | |
| | | | | | | | Blackish, brown silty-sands sand-silt mixture, strong petroleum odor and staining observed. | | 30 |
| | 35 | | | | | | | | 35 |

NOTES: WOS-Weight Of Spoon *Sample submitted for laboratory analysis

BORING ID RAM-SA-4

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WELL ID _____ **Project #** 206.2.2

Date Started 4/1/98 **Date Finished** 4/1/98

| | | |
|------------------------------------|---------------------------------------|------------------------------------|
| Project Name | Client COMGas/Witco | Drilling Co. SoilEx |
| Address 180 MacArther Drive | Address 2421 Cranberry Highway | Drill Method Drive and Wash |
| | Wareham, MA | Driller Mike, Dave, Paul |
| City New Bedford, MA | City Greenwich, CT, | RAM Engineer J.M. |

| | | | | |
|---------------|------------------|--------------------|-------------|------------------|
| CASING | SAMPLER | GROUNDWATER | CORE | SURVEY |
| Type Steel | Type Split-spoon | Date 4/1/98 | Type N/A | Lat. _____ |
| Size 4" ID | Size 2'-2" OD | WL (ref.) N/A | Size N/A | Long. _____ |
| Hammer 300 lb | Hammer 140 lbs | WL (bgs.) N/A | Length N/A | Elev. (ft) _____ |
| Fall 30" | Fall 30 inch | GW Elev. N/A | | |

| Sample ID | Depth (feet) | Blow Count | Recovery (in) | PTD (ppmv) | Lithology | Classification | Description | Well Completion | Depth (feet) |
|-----------|---------------|------------|---------------|------------|-----------|----------------|---|-----------------|--------------|
| | 5 | | | | | | | | 5 |
| | 10 | | | | | | | | 10 |
| | 15 | | | | | | | | 15 |
| | 20 | | | | | | Water/sediment interface at 19' | | 20 |
| 0/2 | 20 | WOS | 24" | 251 | | SP | Black, coal tar residual. Strong petroleum odor observed. Heavy sheen observed. | | 20 |
| *2/4 | | WOS | 24" | 311 | | SP | Black, coal tar residual, poorly-graded sands, gravelly sands along with silty sand. | | |
| 4/6 | 23,26,60,100 | | 24" | 391 | | SM | Black, coal tar residual silty-sands, sand-silt mixture. Heavy sheen observed. Petroleum odor observed | | 25 |
| 6/8 | 86,115,105,96 | | 24" | 205 | | SM | 0-12" Black, coal tar residual, silty-sands, sand-silt mixture. Strong petroleum and heavy sheen observed. | | |
| 8/9 | 116-100/3" | | 4" | 120 | | SC | 12-24" Gray inorganic silts and very fine sands, silty or clayey fine sands or clayey silts. Slight sheen and slight petroleum odor observed. | | |
| *9/10 | 120-109/3" | | 6" | 254 | | SC | Gray, clayey sands, sand-clay mixture. Slight petroleum odor and light sheen observed. Black staining on sampler observed. | | 30 |
| | 30 | | | | | | 0-3" Gray well graded sands, gravelly sands, little or no fines. | | 30 |
| | 35 | | | | | | 3-6" Grayish, black, clayey sands, sand-clay mixture Strong petroleum odor and heavy sheen observed. Black areas of staining on sampler observed. | | 35 |

NOTES: WOS- Weight Of Spoon

RAM**ENVIRONMENTAL**One Roberts Road
Plymouth, MA 02360
REMEDATION • ASSESSMENT • MANAGEMENT**BORING ID** RAM-OSA1

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Project # 206.2.3**Date Started** 8/12/98 **Date Finished** 8/12/98

| | | | | |
|---------------------|---------------------|----------------|------------------------|---------------------|
| Project Name | Client | COMGas/Witco | Drilling Co. | TG&B Marine |
| Address | 180 MacArthur Drive | Address | 2421 Cranberry Highway | Drill Method |
| | | | | Vibratory Hammer |
| City | New Bedford, MA | City | Wareham, MA | Driller |
| | | | | Mark Avakian |
| | | | RAM Engineer | John Mesheau |

| | | | | |
|------------------|----------------|--------------------|-------------------|--------------------|
| CASING | SAMPLER | GROUNDWATER | CORE | SURVEY |
| Type Aluminum | Type N/A | Date N/A | Type Aluminum | Lat. Not Recorded |
| Size 3" OD | Size N/A | WL (ref.) N/A | Size 3" OD | Long. Not Recorded |
| Hammer Vibratory | Hammer N/A | WL (bgs.) N/A | Length Continuous | Elev. (ft) |
| Fall N/A | Fall N/A | GW Elev. N/A | | |

| Sample ID | Depth (feet) | Blow Count | Recovery (ft) | PID (ppmv) | Lithology | Classification | Description | Well Completion | Depth (feet) |
|--------------|--------------|------------|---------------|------------|-----------|----------------|--|-----------------|--------------|
| RAM-OSA1-0/2 | | | 2 | 51.2 | | | Black coal tar like residual, some gravel, saturated, strong coal tar like odor with a heavy, light blue/silver sheen, in some places sheen has red, purple, and yellow streaks. | | |
| RAM-OSA1-2/4 | | | 2 | 185 | | | Black coal tar like residual, with some coarse sand and fine gravel, saturated, strong coal tar like odor and sheen similar to above, sample is less watery with depth. | | |
| RAM-OSA1-4/6 | 5 | | 2 | 149 | | | Black coal tar like residual with fine to medium sand, saturated, strong coal tar odor and sheen similar to above. | | 5 |
| RAM-OSA1-7 | | | 1 | 41.9 | | SP | Brown fine to medium SAND, saturated, strong coal tar like odor, light blue sheen. | | |
| | | | | | | SM | Brown fine SAND with some silt, strong coal tar odor, no sheen. | | |
| | 10 | | | | | | | | 10 |

NOTES:

Sample collected in continuous aluminum sleeve. Samples RAM-OSA1-0/2 and RAM-OSA1-6/8 submitted for laboratory analysis.
Height of water column = 8.8 ft.

| | | | | | |
|---------------------|---------------------|----------------|------------------------|---------------------|------------------|
| Project Name | | Client | COMGas/Witco | Drilling Co. | TG&B Marine |
| Address | 180 MacArthur Drive | Address | 2421 Cranberry Highway | Drill Method | Vibratory Hammer |
| City | New Bedford, MA | City | Wareham, MA | Driller | Mark Anakian |
| | | | | RAM Engineer | John Mesheau |

| | | | | |
|------------------|----------------|--------------------|-------------------|------------------------|
| CASING | SAMPLER | GROUNDWATER | CORE | SURVEY |
| Type Aluminum | Type N/A | Date N/A | Type Aluminum | Lat. 41 deg 37.8801 N |
| Size 3" OD | Size N/A | WL (ref.) N/A | Size 3" OD | Long. 70 deg 55.1378 W |
| Hammer Vibratory | Hammer N/A | WL (bgs.) N/A | Length Continuous | Elev. (ft) |
| Fall N/A | Fall N/A | GW Elev. N/A | | |

| Sample ID | Depth (feet) | Blow Count | Recovery (ft) | PID (ppmv) | Lithology | Classification | Description | Well Completion | Depth (feet) |
|---------------|--------------|------------|---------------|------------|-----------|----------------|---|-----------------|--------------|
| RAM-OSA2-0/2 | | | 2 | 134 | | | Black coal tar like residual with fine gravel, saturated, blue/silver sheen, coal tar like odor. | | |
| | | | | | | | As above (0-2 ft), with cobbles | | |
| RAM-OSA2-2/4 | | | 2 | 540 | | | | | |
| | | | | | | | Black coal tar like residual with coarse sand, fine gravel, some cobbles, saturated, strong coal tar like odor and sheen similar to 0-2 feet. | | |
| RAM-OSA2-4/6 | 5 | | 2 | 724 | | | | | |
| | | | | | | | Black coal tar like residual with coarse sand, saturated, strong coal tar like odor and sheen similar to 0-2 feet. | | |
| RAM-OSA2-6/8 | | | 2 | 341 | | | | | |
| | | | | | | | As above (6-8 ft). | | |
| RAM-OSA2-8/10 | | | 1 | 233 | | | | | |
| | 10 | | | | | | | | 10 |

NOTES: Collected surface water sample (RAM-OSA2-SW) and duplicate (RAM-QA/QC-500). Collected soil sample RAM-OSA2-2/4 for VPH/EPH. Height of water column = 21 ft. Sample collected in continuous aluminum sleeve. Samples RAM-OSA2-0/2, RAM-OSA2-4/6 and RAM-OSA2-8/10 submitted for laboratory analysis.

| | |
|---|--|
| RAM ENVIRONMENTAL One Roberts Road PLYMOUTH, MA 02360 REMEDIATION • ASSESSMENT • MANAGEMENT | BORING ID <u>RAM-OSA3</u> Page 1 of 1 Project # <u>206.2.3</u> Date Started <u>8/12/98</u> Date Finished <u>8/12/98</u> |
|---|--|

| | | |
|--|---|--|
| Project Name _____ Address <u>180 MacArthur Drive</u> City <u>New Bedford, MA</u> | Client <u>COMGas/Witco</u> Address <u>2421 Cranberry Highway</u> City <u>Wareham, MA</u> | Drilling Co. <u>TG&B Marine</u> Drill Method <u>Vibratory Hammer</u> Driller <u>Mark Anakian</u> RAM Engineer <u>John Mesheau</u> |
|--|---|--|

| | | | | |
|--|--|--|--|--|
| CASING Type <u>Aluminum</u> Size <u>3" OD</u> Hammer <u>Vibratory</u> Fall <u>N/A</u> | SAMPLER Type <u>N/A</u> Size <u>N/A</u> Hammer <u>N/A</u> Fall <u>N/A</u> | GROUNDWATER Date <u>N/A</u> WL (ref.) <u>N/A</u> WL (bgs.) <u>N/A</u> GW Elev. <u>N/A</u> | CORE Type <u>Aluminum</u> Size <u>3" OD</u> Length <u>Continuous</u> | SURVEY Lat. <u>41 deg 37.8768</u> N Long. <u>70 deg 55.1650</u> W Elev. (ft) _____ |
|--|--|--|--|--|

| Sample ID | Depth (feet) | Blow Count | Recovery (ft) | PID (ppmv) | Lithology | Classification | Description | Well Completion | Depth (feet) |
|--------------|--------------|------------|---------------|------------|-----------|----------------|---|-----------------|--------------|
| RAM-OSA3-0/2 | | | 2 | 17.4 | | SP | Brownish black fine to medium SAND with sea shells throughout, saturated, coal tar like odor, slight light blue/silver sheen. | | |
| | | | | | | SP | As above (0-2 ft). | | |
| RAM-OSA3-2/4 | | | 2 | 62.7 | | SM | Brownish black silty SAND, saturated, coal tar like odor, red, violet, blue sheen | | |
| | | | | | | SW | Brown coarse SAND and GRAVEL, saturated, coal tar like odor, no sheen | | |
| RAM-OSA3-5 | | | 1 | 39.0 | | SW | Brown coarse SAND and GRAVEL, saturated, coal tar like odor, no sheen | | |
| | 5 | | | | | | | | 5 |
| | 10 | | | | | | | | 10 |

NOTES: Height of water column = 16 ft. RAM-OSA3, one soil sample for VPH/EPH analysis. Sample collected in continuous aluminum sleeve. Samples RAM-OSA3-0/2, RAM QA/QC-400, RAM-OSA3-4/6 submitted for laboratory analysis.

RAM

ENVIRONMENTAL One Roberts Road
REMEDATION • ASSESSMENT • MANAGEMENT Plymouth, MA 02360

BORING ID RAM-OSA6

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Project # 206.2.3

Date Started 8/13/98 **Date Finished** 8/13/98

| | | | | |
|---------------------|---------------------|----------------|------------------------|---------------------|
| Project Name | Client | COMGas/Witco | Drilling Co. | TG&B Marine |
| Address | 180 MacArthur Drive | Address | 2421 Cranberry Highway | Drill Method |
| | | | | Vibratory Hammer |
| City | New Bedford, MA | City | Wareham, MA | Driller |
| | | | | RAM Engineer |
| | | | | John Mesheau |

| | | | | |
|------------------|----------------|--------------------|-------------------|------------------------|
| CASING | SAMPLER | GROUNDWATER | CORE | SURVEY |
| Type Aluminum | Type N/A | Date N/A | Type Aluminum | Lat. 41 deg 37.8642 N |
| Size 3" OD | Size N/A | WL (ref.) N/A | Size 3" OD | Long. 70 deg 55.1389 W |
| Hammer Vibratory | Hammer N/A | WL (bgs.) N/A | Length Continuous | Elev. (ft) |
| Fall N/A | Fall N/A | GW Elev. N/A | | |

| Sample ID | Depth (feet) | Blow Count | Recovery (ft) | PID (ppmv) | Lithology | Classification | Description | Well Completion | Depth (feet) |
|---------------|--------------|------------|---------------|------------|-----------|----------------|---|-----------------|--------------|
| RAM-OSA6-0/2 | | | 2 | 47.5 | | | Black coal tar like residual with fine sand and silt throughout (consistency of brownie mix), saturated, hydrogen sulfide like odor, no sheen. | | |
| RAM-OSA6-2/4 | | | 2 | 34.1 | | | Black coal tar like residual with organics (roots, vegetation), sea shells and debris (wood), some medium sand, grittier than 0-2 ft interval, saturated, hydrogen sulfide like odor, no sheen. | | |
| | | | | | | | As above (2-4 ft). | | |
| RAM-OSA6-4/6 | 5 | | 2 | 38.2 | | | Black coarse SAND with coal tar like residual, saturated, petroleum like odor, grittier than other locations from 4-6 ft. | | 5 |
| | | | | | | | As above (2-4 ft). | | |
| | | | | | | | Black SILT and medium SAND, saturated, hydrogen sulfide like odor, no sheen. | | |
| RAM-OSA6-6/8 | | | 2 | 66.9 | | | Black coarse SAND with petroleum residuals, saturated, petroleum like odor, no sheen. | | |
| | | | | | | | Same as 6-7 ft with some fibrous material (organics, roots, vegetation). | | |
| RAM-OSA6-8/10 | | | 2.5 | 256 | | | Black petroleum like residual with fibrous materials (organics, vegetation), and coarse sand, trace gravel, saturated, petroleum like odor, light pale blue sheen. | | 10 |

NOTES: Sample collected in continuous aluminum sleeve. Samples RAM-OSA6-0/2, RAM-OSA6-4/6 and RAM-OSA6-8/10 submitted for laboratory analysis.

RAM**ENVIRONMENTAL** One Roberts Road
REMEDATION • ASSESSMENT • MANAGEMENT Plymouth, MA 02360**BORING ID** SSB-1

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WELL ID**Project #** 206.2.7**Date Started** 7/14/99 **Date Finished** 7/14/99

| | | |
|------------------------------------|--|------------------------------------|
| Project Name New Bedford | Client Commonwealth Gas Company | Drilling Co. Guild Drilling |
| Address 180 MacArthur Drive | Address 2421 Cranberry Highway | Drill Method Drive and Wash |
| City New Bedford, MA | City Wareham, MA | Driller John/Pete |
| | | RAM Engineer John Mesheau |

| CASING | | SAMPLER | | GROUNDWATER | | CORE | | SURVEY | |
|--------|--------|---------|-------------|-------------|---------|--------|-----|------------|--|
| Type | Steel | Type | Split-spoon | Date | 7/14/99 | Type | N/A | Lat. | |
| Size | 4" ID | Size | 2'-2" OD | WL (ref.) | N/A | Size | N/A | Long. | |
| Hammer | 300 lb | Hammer | 140 lbs | WL (bgs.) | N/A | Length | N/A | Elev. (ft) | |
| Fall | 30" | Fall | 30 inch | GW Elev. | N/A | | | | |

| Sample ID | Depth (feet) | Blow Count | Recovery (in) | PID (ppmv) | Lithology | Classification | Description | Well Completion | Depth (feet) |
|---------------|--------------|--------------|---------------|------------|-----------|----------------|---|-----------------|--------------|
| | 5 | | | | | | | | 5 |
| | 10 | | | | | | | | 10 |
| | 15 | | | | | | | | 15 |
| | 20 | | | | | | Water sediment interface at 17 feet. | | 20 |
| SB1-0-6.5 | 20 | WOS | 24 | 1054 | | | black COAL TAR LIKE RESIDUAL, some silt and fine sand saturated (consistency of mayo), with iridescent sheen (red/blue/green) and coal tar like odor. | | 20 |
| SB1-6.5/8.5 | 25 | 10-15-10-7 | 6 | 1038 | | SW | black medium to coarse SAND, some fine gravel, little silt saturated with iridescent sheen, (red/blue/yellow) and coal tar like odor. | | 25 |
| SB1-8.5/10.5 | | 14-18-24-27 | 18 | 803 | | SW | black medium to coarse SAND saturated with iridescent sheen (red/blue/yellow) and coal tar like odor. | | |
| SB1-10.5/12.5 | | 29-27-15-31 | 15 | 57.8/293 | | SW | brownish gray coarse SAND, saturated, no sheen, coal tar like odor. | | |
| SB1-12.5/14.5 | 30 | 10-11-13-105 | 18 | 106 | | ML | brownish gray coarse SAND, saturated, no sheen, coal tar like odor. | | 30 |
| SB1-14.5/16.5 | | 100/3 | NA | NA | | SM | brownish gray coarse SAND and SILT, saturated, no sheen coal tar like odor. | | |
| | | | | | | | No recovery. | | |
| | | | | | | | Roller bit refusal 32.5'. | | |
| | 35 | | | | | | | | 35 |

NOTES:

RAM**ENVIRONMENTAL**One Roberts Road
Plymouth, MA 02360
REMEDIAL • ASSESSMENT • MANAGEMENT**BORING ID** SSB-2

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WELL ID

PZ-1

Project # 206.2.7**Date Started** 7/15/99 **Date Finished** 7/15/99

| | | |
|------------------------------------|--|------------------------------------|
| Project Name New Bedford | Client Commonwealth Gas Company | Drilling Co. Guild Drilling |
| Address 180 MacArthur Drive | Address 2421 Cranberry Highway | Drill Method Drive and Wash |
| City New Bedford, MA | City Wareham, MA | Driller John/Pete |
| | | RAM Engineer John Mesheau |

| | | | | |
|---------------|------------------|--------------------|-------------|------------------|
| CASING | SAMPLER | GROUNDWATER | CORE | SURVEY |
| Type Steel | Type Split-spoon | Date 7/15/99 | Type N/A | Lat. _____ |
| Size 4" ID | Size 2'-2" OD | WL (ref.) N/A | Size N/A | Long. _____ |
| Hammer 300 lb | Hammer 140 lbs | WL (bgs.) N/A | Length N/A | Elev. (ft) _____ |
| Fall 30" | Fall 30 inch | GW Elev. N/A | | |

| Sample ID | Depth (feet) | Blow Count | Recovery (in) | PID (ppmv) | Lithology | Classification | Description | Well Completion | Depth (feet) |
|---------------|--------------|-------------|---------------|------------|-----------|----------------|--|-----------------|--------------|
| | 5 | | | | | | | | 5 |
| | 10 | | | | | | | | 10 |
| SB2-0/3.5 | | WOS | 12 | 615 | | | Water sediment interface at 11.5'. | | |
| | 15 | | | | | | black COAL TAR LIKE RESIDUAL, some organics (roots), trace medium sand, (consistency of mayo) with iridescent (red/blue/yellow) sheen and coal tar like odor. | | 15 |
| SB2-3.5/5.5 | | 7-3-3-3 | 0 | NA | | | no recovery. | | |
| SB2-5.5/7.5 | | 2-12-13-14 | 12 | 1591 | | SP | black coarse to medium SAND, some fine gravel, saturated, pockets of free phase coal tar like residual, iridescent (red/blue/yellow) sheen, coal tar like odor. | | |
| SB2-7.5/9.5 | | 10-13-17-20 | 6 | <2000 | | SP | grayish black medium to coarse SAND, some fine gravel, trace silt, saturated, pockets of free phase coal tar like residual, iridescent blue sheen, coal tar like odor. | | 20 |
| SB2-9.5/11.5 | | 20-16-13-12 | 12 | 1003 | | SP | gray fine to coarse SAND, some silt, saturated iridescent blue sheen, coal tar like odor. | | |
| SB2-11.5/13.5 | | 20-21-16-19 | 12 | 309 | | GP | gray black fine GRAVEL and coarse sand, iridescent blue sheen coal tar like odor. | | 25 |
| SB2-13.5/15.5 | | 14-16-61 | 18 | 727 | | GP | same as above. | | |
| | | | | | | | roller bit refusal at 27'. | | |
| | 30 | | | | | | | | 30 |
| | 35 | | | | | | | | 35 |

NOTES: Schedule 40 PVC 0.010 slotted well screen from 20' to 25', filter pack sand 19' to 27', bentonite from 15' to 19', with native material from 11.5' to 15'.




RAM**ENVIRONMENTAL**One Roberts Road
Plymouth, MA 02360
REMEDICATION • ASSESSMENT • MANAGEMENT**BORING ID** SSB-3

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WELL ID**Project #** 206.2.7**Date Started** 7/15/99 **Date Finished** 7/15/99

| | | |
|------------------------------------|--|------------------------------------|
| Project Name New Bedford | Client Commonwealth Gas Company | Drilling Co. Guild Drilling |
| Address 180 MacArthur Drive | Address 2421 Cranberry Highway | Drill Method Drive and Wash |
| City New Bedford, MA | City Wareham, MA | Driller John/Pete |
| | | RAM Engineer John Mesheau |

| | | | | |
|---------------|------------------|--------------------|-------------|---------------|
| CASING | SAMPLER | GROUNDWATER | CORE | SURVEY |
| Type Steel | Type Split-spoon | Date 7/15/99 | Type N/A | Lat. |
| Size 4" ID | Size 2'-2" OD | WL (ref.) N/A | Size N/A | Long. |
| Hammer 300 lb | Hammer 140 lbs | WL (bgs.) N/A | Length N/A | Elev. (ft) |
| Fall 30" | Fall 30 inch | GW Elev. N/A | | |

| Sample ID | Depth (feet) | Blow Count | Recovery (in) | PID (ppmv) | Lithology | Classification | Description | Well Completion | Depth (feet) |
|---------------|--------------|-------------|---------------|------------|---|----------------|--|-----------------|--------------|
| | 5 | | | | | | | | 5 |
| | 10 | | | | | | | | 10 |
| | 15 | | | | | | | | 15 |
| | 20 | | | | | | Water sediment interface at 17 feet. | | 20 |
| SB3-0/7.5 | | WOS | 18 | 1967 | | | black COAL TAR LIKE RESIDUALS some fine sand and silt with consistency of tomato paste, saturated, some debris (appears to be newspaper), iridescent (red/blue/yellow) sheen, coal tar like odor, | | |
| SB3-7.5/9.5 | 25 | 8-12-14-13 | 18 | >2000 |  | GP | black fine to coarse GRAVEL, some medium to coarse sand and cobbles, saturated, iridescent (red/blue/yellow) sheen, pockets of free phase coal tar like residual, coal tar like odor. | | 25 |
| SB3-9.5/11.5 | | 13-14-20-24 | 12 | >2000 |  | GP | black fine GRAVEL and coarse SAND, some silt in bottom 6 inches of spoon, trace coarse gravel, saturated, iridescent (red/blue/yellow) sheen, pockets of free phase coal tar like residual, coal tar like odor | | |
| SB3-11.5/13.5 | 30 | 35-62-98 | 18 | 922 |  | ML | gray fine GRAVEL and coarse SAND, saturated, iridescent (red/blue/yellow) sheen, coal tar like odor, gray SILT, some coarse gravel, saturated, no sheen, coal tar like odor, roller bit refusal at 31.5 | | 30 |
| | 35 | | | | | | | | 35 |

NOTES:

BORING ID SSB-4

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WELL ID _____

Project # 206.2.7

Date Started 7/15/99 **Date Finished** 7/16/99

| | | |
|------------------------------------|--|------------------------------------|
| Project Name New Bedford | Client Commonwealth Gas Company | Drilling Co. Guild Drilling |
| Address 180 MacArthur Drive | Address 2421 Cranberry Highway | Drill Method Drive and Wash |
| City New Bedford, MA | City Wareham, MA | Driller John/Pete |
| | | RAM Engineer John Mesheau |

| | | | | |
|--|---|--|---|--|
| CASING Type Steel Size 4" ID Hammer 300 lb Fall 30" | SAMPLER Type Split-spoon Size 2'-2" OD Hammer 140 lbs Fall 30 inch | GROUNDWATER Date 7/16/99 WL (ref.) N/A WL (bgs.) N/A GW Elev. N/A | CORE Type N/A Size N/A Length N/A | SURVEY Lat. _____ Long. _____ Elev. (ft) _____ |
|--|---|--|---|--|

| Sample ID | Depth (feet) | Blow Count | Recovery (in) | PID (ppmv) | Lithology | Classification | Description | Well Completion | Depth (feet) |
|---------------|--------------|-------------|---------------|------------|-----------|----------------|--|-----------------|--------------|
| | 5 | | | | | | | | 5 |
| | 10 | | | | | | | | 10 |
| | 15 | | | | | | Water sediment interface at 13.5'. black COAL TAR LIKE RESIDUAL, some fine sand and silt, saturated, consistency of tomato paste, iridescent (red/blue/yellow) sheen | | 15 |
| SB4-0/10.5 | 10.5 | WOS | 18 | 1484 | | | | | 20 |
| SB4-10.5/12.5 | 12.5 | 13-14-20-33 | 12 | 1503 | | GP | black coarse SAND and fine GRAVEL, saturated, iridescent (red/blue/yellow) sheen, coal tar like odor, pockets of free phase coal tar like residual | | 25 |
| SB4-12.5/14.5 | 14.5 | 13-14-20-53 | 6 | 341 | | SP | gray medium to coarse SAND, some silt and fine gravel, saturated, iridescent blue sheen, coal tar like odor | | 30 |
| SB4-14.5/16.5 | 16.5 | 45-51-63 | 18 | 189 | | SM | gray fine to medium SAND, some silt and fine gravel, saturated iridescent blue sheen, bottom 9 inches gray SILT, fine to coarse gravel, coal tar like odor. roller bit refusal at 30'. | | 35 |

NOTES:

RAM**ENVIRONMENTAL** One Roberts Road
REMEDATION • ASSESSMENT • MANAGEMENT Plymouth, MA 02360**BORING ID** SSB-5

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WELL ID PZ-2 **Project #** 206.2.7**Date Started** 7/16/99 **Date Finished** 7/16/99

| | | |
|------------------------------------|--|------------------------------------|
| Project Name New Bedford | Client Commonwealth Gas Company | Drilling Co. Guild Drilling |
| Address 180 MacArthur Drive | Address 2421 Cranberry Highway | Drill Method Drive and Wash |
| | | Driller John/Pete |
| City New Bedford, MA | City Wareham, MA | RAM Engineer John Mesheau |

| CASING | | SAMPLER | | GROUNDWATER | | CORE | | SURVEY | |
|--------|--------|---------|-------------|-------------|---------|--------|-----|------------|--|
| Type | Steel | Type | Split-spoon | Date | 7/16/99 | Type | N/A | Lat. | |
| Size | 4" ID | Size | 2'-2" OD | WL (ref.) | N/A | Size | N/A | Long. | |
| Hammer | 300 lb | Hammer | 140 lbs | WL (bgs.) | N/A | Length | N/A | Elev. (ft) | |
| Fall | 30" | Fall | 30 inch | GW Elev. | N/A | | | | |

| Sample ID | Depth (feet) | Blow Count | Recovery (in) | PID (ppmv) | Lithology | Classification | Description | Well Completion | Depth (feet) |
|--------------|--------------|------------|---------------|------------|-----------|----------------|--|-----------------|--------------|
| | 5 | | | | | | | | 5 |
| | 10 | | | | | | | | 10 |
| | 15 | | | | | | | | 15 |
| | 20 | | | | | | Water sediment interface at 16.5'. black COAL TAR LIKE RESIDUAL, some fine sand and silt, saturated (consistency of tomato paste) with iridescent (red/blue/yellow) sheen, pockets of free phase coal tar like residual, coal tar like odor | | 20 |
| SB5-0/8.5 | | WOS | 18 | >2000 | | | | | |
| | 25 | | | | | | | | 25 |
| SB5-8.5/10.5 | 20-14-24-15 | 15 | 157 | | | SP | gray medium to coarse SAND and fine GRAVEL with lenses of SILT from 9 to 12 inches, saturated, at 12 inches gray silty sand, no sheen, coal tar like odor | | |
| SB5-11/13 | 11-13-25-75 | 24 | 633 | | | SP | gray/black medium to fine SAND, some coarse gravel, saturated with iridescent blue sheen, coal tar like odor. | | |
| SB5-13/15 | 17-18-100/3 | 6 | 141 | | | SM | Bottom 6 inches silty sand with some coarse gravel. brownish gray SILTY SAND, saturated no sheen, coal tar like odor | | 30 |
| | | | | | | | Roller bit refusal at 31.5' | | |
| | 35 | | | | | | | | 35 |

NOTES: Schedule 40 PVC 0.010 slotted well screen from 26.5' to 31.5', filter pack sand from 25.5' to 31.5', bentonite seal from 22.5' to 25.5' native material from 16.5' to 25.5'

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment SED-1
Core ID: _____

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Project #: 500.1.10

Start Date: January 3, 2007

End Date: January 3, 2007

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

Drilling Co.: TG&B

Drilling Method: Vibratory Core

Driller: _____

Lightship Rep.: B.LaPierre & N.Abreu

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|-------------------|---------------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 8ft, 3.0 OD | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): 4.21 feet | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-------------------|-------------|------------------|-------------|-------------|
|-------------|--------------|-----------|------------|-------------------|-------------|------------------|-------------|-------------|

Water and sediment interface at approximately 17 feet below the bulkhead.

| | | | | | | | | | | |
|-----|------|----------|-----|-----|-----|-----|----|----|----|---|
| 0 | 1 | SED-1/2* | N/A | N/A | N/A | N/A | 12 | NA | SP | Black, fine to coarse SAND (asphalt-like consistency), some silt. Coal tar observed. Coal tar-like odor detected. |
| 1 | 3 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, some fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 3 | 5 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, some fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 5 | 7 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, some fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 7 | 9.5 | | N/A | N/A | N/A | N/A | 30 | NA | OL | Black, organic SILT, some fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 9.5 | 11.5 | SED-1A | N/A | N/A | N/A | N/A | 24 | NA | SW | Black, medium to coarse SAND, some fine to coarse gravel, little fine sand. Coal tar observed. Coal tar-like odor detected. |

Notes: Soil samples were collected for total organic vapor ("TOV") screening. *Indicates soil sample collected and composited with soil samples from sediment core SED2-0/8.

Sediment SED-2

Core ID: _____

Page 1 of 1

Project #: 500.1.10

Start Date: January 3, 2007

End Date: January 3, 2007

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

Drilling Co.: TG&B

Drilling Method: Vibratory Core

Driller: _____

Lightship Rep.: B.LaPierre & N.Abreu

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|-------------------|---------------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 8ft, 3.0 OD | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): 4.58 feet | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. | | |
|---|--------------|--|------------|-------------------|-------------|------------------|-------------|-------------|----|---|
| Water and sediment interface at approximately 17 feet below the bulkhead. | | | | | | | | | | |
| 0 | 2 | SED-1/2* | N/A | N/A | N/A | N/A | 24 | NA | SP | Black, organic SILT, trace fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 6 | 8 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 8 | 9.5 | No soil sample collected due to no recovery. | | | | | | | | |

Notes: Soil samples were collected for total organic vapor ("TOV") screening. *Indicates soil sample collected and composited with soil samples from sediment core SED1-0/9.5.

Sediment SED-3
Core ID: _____

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Project #: 500.1.10

Start Date: January 3, 2007

End Date: January 3, 2007

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B
Drilling Method: Vibratory Core
Driller: _____
Lightship Rep.: B.LaPierre & N.Abreu

City: New Bedford State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|-------------------|---------------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 8ft, 3.0 OD | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): 5.25 feet | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. | | |
|---|--------------|--|------------|-------------------|-------------|------------------|-------------|-------------|----|---|
| Water and sediment interface at approximately 21 feet below the bulkhead. | | | | | | | | | | |
| 0 | 2 | SED-3/4* | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 6 | 8 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 8 | 9.5 | | N/A | N/A | N/A | N/A | 18 | NA | OL | Black, organic SILT, trace fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 9.5 | 11 | No soil sample collected due to no recovery. | | | | | | | | |

Notes: Soil samples were collected for total organic vapor ("TOV") screening. *Indicates soil sample collected and composited with soil samples from sediment core SED4-0/10.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment SED-4
Core ID: _____

Page 1 of 1

Project #: 500.1.10

Start Date: January 3, 2007

End Date: January 3, 2007

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

Drilling Co.: TG&B

Drilling Method: Vibratory Core

Driller: _____

Lightship Rep.: B.LaPierre & N.Abreu

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|-------------------|---------------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 8ft, 3.0 OD | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): 5.50 feet | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-------------------|-------------|------------------|-------------|-------------|
|-------------|--------------|-----------|------------|-------------------|-------------|------------------|-------------|-------------|

Water and sediment interface at approximately 20 feet below the bulkhead.

| | | | | | | | | | | |
|----|----|--|-----|-----|-----|-----|----|----|-------|--|
| 0 | 3 | SED-3/4* | N/A | N/A | N/A | N/A | 36 | NA | OL | Black, organic SILT, trace fine sand. Organic-coal tar-like odor detected. |
| 3 | 4 | | N/A | N/A | N/A | N/A | 12 | NA | OL | Black, organic SILT, trace fine sand. Coal tar-like odor detected. |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 6 | 8 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 8 | 10 | | N/A | N/A | N/A | N/A | 24 | NA | OL/SW | Black, organic SILT, little fine to coarse sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 10 | 11 | No soil sample collected due to no recovery. | | | | | | | | |

Notes: Soil samples were collected for total organic vapor ("TOV") screening. *Indicates soil sample collected and composited with soil samples from sediment core SED3-0/9.5.

Sediment SED-5
Core ID: _____

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Project #: 500.1.10

Start Date: January 3, 2007

End Date: January 3, 2007

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B
Drilling Method: Vibratory Core
Driller:
Lightship Rep.: B.LaPierre & N.Abreu

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|-------------------|---------------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 8ft, 3.0 OD | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): 5.83 feet | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. | | |
|---|--------------|--|------------|-------------------|-------------|------------------|-------------|-------------|----|---|
| Water and sediment interface at approximately 20 feet below the bulkhead. | | | | | | | | | | |
| 0 | 3 | SED-5/6* | N/A | N/A | N/A | N/A | 36 | NA | OL | Black, organic SILT, trace fine sand. Organic-coal tar-like odor detected. |
| 3 | 4 | | N/A | N/A | N/A | N/A | 12 | NA | OL | Black, organic SILT, trace fine sand. Coal tar-like odor detected. |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 6 | 8 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 8 | 10 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 10 | 11 | No soil sample collected due to no recovery. | | | | | | | | |

Notes: Soil samples were collected for total organic vapor ("TOV") screening. *Indicates soil sample collected and composited with soil samples from sediment core SED6-0/6.5.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment SED-6

Core ID: _____

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Project #: 500.1.10

Start Date: January 3, 2007

End Date: January 3, 2007

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

Drilling Co.: TG&B

Drilling Method: Vibratory Core

Driller: _____

Lightship Rep.: B.LaPierre & N.Abreu

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|-------------------|---------------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 8ft, 3.0 OD | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): 6.08 feet | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-------------------|-------------|------------------|-------------|-------------|
|-------------|--------------|-----------|------------|-------------------|-------------|------------------|-------------|-------------|

Water and sediment interface at approximately 20 feet below the bulkhead.

| | | | | | | | | | | |
|-----|-----|----------|-----|-----|-----|-----|----|----|----|---|
| 0 | 3 | SED-5/6* | N/A | N/A | N/A | N/A | 36 | NA | OL | Black, organic SILT, trace fine sand. Organic-coal tar-like odor detected. |
| 3 | 4 | | N/A | N/A | N/A | N/A | 12 | NA | OL | Black, organic SILT, some fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 4 | 6.5 | | N/A | N/A | N/A | N/A | 30 | NA | OL | Black, organic SILT, some fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 6.5 | 7 | SED-6A | N/A | N/A | N/A | N/A | 6 | NA | SW | Black, medium to coarse SAND, some fine to coarse gravel, little fine sand. Coal tar observed. Coal tar-like odor detected. |

Notes: Soil samples were collected for total organic vapor ("TOV") screening. *Indicates soil sample collected and composited with soil samples from sediment core SED5-0/10.

Sediment Core ID: SED-7

Page 1 of 1

Project #: 500.1.10

Start Date: January 3, 2007

End Date: January 3, 2007

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B
Drilling Method: Vibratory Core
Driller:
Lightship Rep.: B.LaPierre & N.Abreu

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|-------------------|---------------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 8ft, 3.0 OD | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): 6.42 feet | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|---|--------------|------------|------------|-----|-----|-----|-------------------|-------------|------------------|---|-------------|
| Water and sediment interface at approximately 19 feet below the bulkhead. | | | | | | | | | | | |
| 0 | 2 | SED-7/8* | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Organic-coal tar-like odor detected. | |
| 4 | 5 | | N/A | N/A | N/A | N/A | 12 | NA | OL | Black, organic SILT, trace fine sand. Organic-coal tar-like odor detected. | |
| 5 | 7 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, some fine sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 7 | 8 | | N/A | N/A | N/A | N/A | 12 | NA | OL | Black, organic SILT, some fine sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 8 | 8.8 | SED-7/8A** | N/A | N/A | N/A | N/A | 9.6 | NA | SW | Black, medium to coarse SAND, some fine to coarse gravel, little fine sand. Coal tar impacts observed. Coal tar-like odor detected. | |

Notes: Soil samples were collected for total organic vapor ("TOV") screening. *Indicates soil sample collected and composited with soil samples from sediment core SED8-0/11. **Indicates soil sample collected and composited with soil samples from sediment core SED8-11/12.

Sediment SED-8
Core ID: _____

Page 1 of 1

Project #: 500.1.10

Start Date: January 3, 2007

End Date: January 3, 2007

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B
Drilling Method: Vibratory Core
Driller: _____
Lightship Rep.: B.LaPierre & N.Abreu

City: New Bedford State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|-------------------|---------------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 8ft, 3.0 OD | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): 6.67 feet | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. | | |
|---|--------------|------------|------------|-------------------|-------------|------------------|-------------|-------------|----|---|
| Water and sediment interface at approximately 20 feet below the bulkhead. | | | | | | | | | | |
| 0 | 2 | SED-7/8* | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Organic-coal tar-like odor detected. |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Organic-coal tar-like odor detected. |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, some fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 6 | 8 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, some fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 8 | 10 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, some fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 10 | 11 | | N/A | N/A | N/A | N/A | 12 | NA | OL | Black, organic SILT, some fine sand. Coal tar pockets observed. Coal tar-like odor detected. |
| 11 | 12 | SED-7/8A** | N/A | N/A | N/A | N/A | 24 | NA | SW | Black, fine to coarse SAND, some fine to coarse gravel, little fine sand. Coal tar observed. Coal tar-like odor detected. |

Notes: Soil samples were collected for total organic vapor ("TOV") screening. *Indicates soil sample collected and composited with soil samples from sediment core SED7-0/8. **Indicates soil sample collected and composited with soil samples from sediment core SED7-8/8.8.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-1

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Project #: 500.10.4

Start Date: December 30, 2008

End Date: December 30, 2008

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: R. Reynolds
Lightship Rep.: N. Shipley, D. McGrath

City: New Bedford State: Massachusetts

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat: | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long: | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev: | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | WC-I* | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, little clay. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 7 | | N/A | N/A | N/A | N/A | 12 | NA | OL | Black, organic SILT, little clay. Coal tar pockets observed. Coal tar-like odor detected. | |

Notes: * Indicates composite sediment sample from entire core submitted for laboratory analysis.
^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-2

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Project #: 500.10.4

Start Date: December 30, 2008

End Date: December 30, 2008

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: R. Reynolds
Lightship Rep.: N. Shipley, D. McGrath

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|----------------------------|-----------------------|--------------------|------------------|
| Type: <u>N/A</u> | Type: <u>Aluminum</u> | Date: <u>N/A</u> | Type: <u>N/A</u> | Lat. <u>N/A</u> |
| Size: <u>N/A</u> | Size: <u>20ft, 3" dia.</u> | WL (ref.): <u>N/A</u> | Size: <u>N/A</u> | Long. <u>N/A</u> |
| Hammer: <u>N/A</u> | Hammer: <u>N/A</u> | WL (bgs): <u>N/A</u> | Length: <u>N/A</u> | Elev. <u>N/A</u> |
| Fall: <u>N/A</u> | Fall: <u>N/A</u> | SW Elev.: <u>N/A</u> | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const |
|-------------|--------------|---------------------------------------|------------|-----|-----|-----|-------------------|-------------|------------------|--|------------|
| 0^ | 2 | WC-2* WC-2 (0-7)** WC-2 (7-8)** | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace silt. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, little clay. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 7 | | N/A | N/A | N/A | N/A | 12 | NA | OL | Black, organic SILT, little clay. Coal tar pockets observed. Coal tar-like odor detected. | |
| 7 | 8 | | N/A | N/A | N/A | N/A | 12 | NA | SW | Gray, medium to fine SAND, trace fine gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.
 **Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.
 ^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: **WC-3**

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Project #: **500.10.4**

Start Date: **December 30, 2008**

End Date: **December 30, 2008**

Client Name: **NSTAR**
Project Name: **Slip Area**
Site Address: **180 MacArthur Drive**

Drilling Co.: **TG&B Marine Services**
Drilling Method: **Vibratory Core**
Driller: **R. Reynolds**
Lightship Rep.: **N. Shipley, D. McGrath**

City: **New Bedford**

State: **Massachusetts**

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|----------------------------|-----------------------|--------------------|------------------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat: N/A |
| Size: N/A | Size: 20ft, 3" dia. | WL (ref.): N/A | Size: N/A | Long: N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): N/A | Length: N/A | Elev: N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const |
|-------------|--------------|--|-----------------|-------------------|-------------|------------------|--|------------|
| 0^ | 2 | WC-3* WC-3 (0-7)** WC-3 (7-11)** | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 7 | | N/A N/A N/A N/A | 12 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 7 | 9 | | N/A N/A N/A N/A | 24 | NA | SW | Gray, medium to fine SAND, trace fine gravel. No staining with some coal tar-like odor. | |
| 9 | 11 | | N/A N/A N/A N/A | 24 | NA | SW | Gray, medium to fine SAND, trace fine gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.
**Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.
^Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: **WC-4**

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Project #: 500.10.4

Start Date: December 30, 2008

End Date: December 30, 2008

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: R. Reynolds
Lightship Rep.: N. Shipley, D. McGrath

City: New Bedford

State: Massachusetts

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat: | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref): | N/A | Size: | N/A | Long: | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev: | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|--|------------|-----|-----|-----|-------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-4* WC-4 (0-7)** WC-4 (7-11)** | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 7 | | N/A | N/A | N/A | N/A | 12 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 7 | 9 | | N/A | N/A | N/A | N/A | 24 | NA | SW | Gray, medium to fine SAND, trace fine gravel. No staining with some coal tar-like odor. | |
| 9 | 11 | | N/A | N/A | N/A | N/A | 24 | NA | SW | Gray, medium to fine SAND, trace fine gravel. No staining with some coal tar-like odor. | |
| 11 | 12.7 | | N/A | N/A | N/A | N/A | NA | NA | NA | No Recovery | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.
 **Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.
 ^Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-5

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Project #: 500.10.4

Start Date: December 30, 2008

End Date: December 30, 2008

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: R. Reynolds
Lightship Rep.: N. Shipley, D. McGrath

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|----------------------------|----------------------|--------------------|------------------|
| Type: <u>N/A</u> | Type: <u>Aluminum</u> | Date: <u>N/A</u> | Type: <u>N/A</u> | Lat: <u>N/A</u> |
| Size: <u>N/A</u> | Size: <u>20ft, 3" dia.</u> | WL (ref): <u>N/A</u> | Size: <u>N/A</u> | Long: <u>N/A</u> |
| Hammer: <u>N/A</u> | Hammer: <u>N/A</u> | WL (bgs): <u>N/A</u> | Length: <u>N/A</u> | Elev: <u>N/A</u> |
| Fall: <u>N/A</u> | Fall: <u>N/A</u> | SW Elev.: <u>N/A</u> | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|--|-----------------|-------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-5* WC-5 (0-8)** WC-5 (8-11)** | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, some medium sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, some medium sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 8 | 10 | | N/A N/A N/A N/A | 24 | NA | SW | Gray, medium to fine SAND, trace fine gravel. No staining with some coal tar-like odor. | |
| 10 | 11 | | N/A N/A N/A N/A | 12 | NA | SW | Gray, medium SAND, some coarse gravel. No staining with some coal tar-like odor. | |
| 11 | 12.2 | | N/A N/A N/A N/A | NA | NA | NA | No Recovery | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

**Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.

^Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: **WC-6**

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Project #: 500.10.4

Start Date: December 30, 2008

End Date: December 30, 2008

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: N. Shipley, D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat: | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long: | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev: | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|--|------------|-----|-----|-----|-------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-6* WC-6 (0-8)** WC-6 (8-13)** | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace sand, trace gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 8 | 10 | | N/A | N/A | N/A | N/A | 24 | NA | SW | Gray, medium SAND, trace coarse sand. No staining with some coal tar-like odor. | |
| 10 | 12.2 | | N/A | N/A | N/A | N/A | 12.4 | NA | SW | Gray, medium SAND, trace coarse sand. No staining with some coal tar-like odor. | |
| 12.2 | 13.2 | | N/A | N/A | N/A | N/A | NA | NA | NA | No Recovery | |

Notes:

*Indicates composite sediment sample from entire core submitted for laboratory analysis.

**Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-7

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Project #: 500.10.4

Start Date: December 30, 2008

End Date: December 30, 2008

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: R. Reynolds
Lightship Rep.: N. Shipley, D. McGrath

City: New Bedford State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|----------------------------|-----------------------|--------------------|------------------|
| Type: <u>N/A</u> | Type: <u>Aluminum</u> | Date: <u>N/A</u> | Type: <u>N/A</u> | Lat: <u>N/A</u> |
| Size: <u>N/A</u> | Size: <u>20ft, 3" dia.</u> | WL (ref.): <u>N/A</u> | Size: <u>N/A</u> | Long: <u>N/A</u> |
| Hammer: <u>N/A</u> | Hammer: <u>N/A</u> | WL (bgs): <u>N/A</u> | Length: <u>N/A</u> | Elev: <u>N/A</u> |
| Fall: <u>N/A</u> | Fall: <u>N/A</u> | SW Elev.: <u>N/A</u> | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|---------------------------------------|-----------------|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | WC-7* WC-7 (0-5)** WC-7 (5-8)** | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 4 | 5 | | N/A N/A N/A N/A | 12 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 5 | 6 | | N/A N/A N/A N/A | 12 | NA | SW | Gray, fine SAND, some fine gravel. No staining with some coal tar-like odor. | |
| 6 | 8 | | N/A N/A N/A N/A | 24 | NA | SW | Gray, fine to medium SAND, some silt and medium gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.
**Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.
^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-8

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Project #: 500.10.4

Start Date: December 30, 2008

End Date: December 30, 2008

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: R. Reynolds
Lightship Rep.: N. Shipley, D. McGrath

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|---------------------------|----------------------|--------------------|------------------|
| Type: <u>N/A</u> | Type: <u>Aluminum</u> | Date: <u>N/A</u> | Type: <u>N/A</u> | Lat: <u>N/A</u> |
| Size: <u>N/A</u> | Size: <u>20ft, 3" dia</u> | WL (ref): <u>N/A</u> | Size: <u>N/A</u> | Long: <u>N/A</u> |
| Hammer: <u>N/A</u> | Hammer: <u>N/A</u> | WL (bgs): <u>N/A</u> | Length: <u>N/A</u> | Elev: <u>N/A</u> |
| Fall: <u>N/A</u> | Fall: <u>N/A</u> | SW Elev.: <u>N/A</u> | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const |
|-------------|--------------|--|-----------------|-------------------|-------------|------------------|--|------------|
| 0^ | 2 | WC-8* WC-8 (0-8)** WC-8 (8-15)** | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 8 | 10 | | N/A N/A N/A N/A | 24 | NA | SW | Gray, fine SAND, trace fine gravel. No staining with some coal tar-like odor. | |
| 10 | 12 | | N/A N/A N/A N/A | 24 | NA | SW | Gray, medium SAND, some silt and gravel. No staining with some coal tar-like odor. | |
| 12 | 14 | | N/A N/A N/A N/A | 24 | NA | SW | Gray, fine SAND, some silt. No staining with some coal tar-like odor. | |
| 14 | 15 | | N/A N/A N/A N/A | 12 | NA | SW | Gray, medium SAND and gravel. Coal tar observed. Coal tar-like odor detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.
 **Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.
 ^Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-9

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Project #: 500.10.4

Start Date: December 30, 2008

End Date: December 30, 2008

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: R. Reynolds
Lightship Rep.: N. Shipley, D. McGrath

City: New Bedford

State: Massachusetts

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat: | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long: | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev: | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|--|------------|-----|-----|-----|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | WC-9* WC-9 (0-7)** WC-9 (7-12)** | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | SW | Gray, fine SAND, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 7 | | N/A | N/A | N/A | N/A | 12 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 7 | 8 | | N/A | N/A | N/A | N/A | 12 | NA | SW | Gray, fine SAND, some fine gravel. No staining with some coal tar-like odor. | |
| 8 | 10 | | N/A | N/A | N/A | N/A | 24 | NA | SP | Gray, medium SAND, trace medium gravel. No staining with some coal tar-like odor. | |
| 10 | 12 | | N/A | N/A | N/A | N/A | 24 | NA | SW | Black, medium to coarse SAND. Coal tar observed. Coal tar-like odor detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.
 **Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.
 ^Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: **WC-10**

Page 1 of 1

Project #: 500.10.4

Start Date: January 2, 2009

End Date: January 2, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: N. Shipley D. McGrath

City: New Bedford

State: Massachusetts

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat: | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long: | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev: | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | WC-10* | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, little clay. Coal tar pockets observed. Coal tar like odor detected. | |
| 6 | 7.5 | | N/A | N/A | N/A | N/A | 18 | NA | OL | Black, organic SILT, little clay. Coal tar pockets observed. Coal tar like odor detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: **WC-11**

Page 1 of 1

Project #: 500.10.4

Start Date: January 2, 2009

End Date: January 2, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: N. Shipley, D. McGrath

City: New Bedford

State: Massachusetts

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat: | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref): | N/A | Size: | N/A | Long: | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev: | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-11* | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace silt. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace silt. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace silt. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 6.6 | | N/A | N/A | N/A | N/A | 7 | NA | OL | Black, organic SILT, trace silt. Coal tar pockets observed. Coal tar-like odor detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-12

Page 1 of 1

Project #: 500.10.4

Start Date: January 2, 2009

End Date: January 2, 2009

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: R. Reynolds
Lightship Rep.: N. Shipley, D. McGrath

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|----------------------------|----------------------|--------------------|------------------|
| Type: <u>N/A</u> | Type: <u>Aluminum</u> | Date: <u>N/A</u> | Type: <u>N/A</u> | Lat: <u>N/A</u> |
| Size: <u>N/A</u> | Size: <u>20ft, 3" dia.</u> | WL (ref): <u>N/A</u> | Size: <u>N/A</u> | Long: <u>N/A</u> |
| Hammer: <u>N/A</u> | Hammer: <u>N/A</u> | WL (bgs): <u>N/A</u> | Length: <u>N/A</u> | Elev: <u>N/A</u> |
| Fall: <u>N/A</u> | Fall: <u>N/A</u> | SW Elev.: <u>N/A</u> | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|---|-----------------|-------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-12* WC-12 (0-8)** WC-12 (8-10)** | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace silt. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace silt. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace silt. Coal tar pockets observed. Coal tar-like odor detected. | |
| 8 | 9.7 | | N/A N/A N/A N/A | 20.4 | NA | SW | Gray, medium SAND, some medium gravel. No staining with some coal tar-like odor. | |
| 9.7 | 10 | | N/A N/A N/A N/A | NA | NA | NA | No Recovery | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.
**Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.
^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: **WC-13**

Page 1 of 1

Project #: 500.10.4

Start Date: January 2, 2009

End Date: January 2, 2009

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: R. Reynolds
Lightship Rep.: N. Shipley, D. McGrath

City: New Bedford

State: Massachusetts

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat: | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long: | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev: | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|---|------------|-----|-----|-----|-------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-13* WC-13 (0-10)** WC-13 (10-11)** | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace silt. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace silt. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace silt. Coal tar pockets observed. Coal tar-like odor detected. | |
| 8 | 10 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace silt. Coal tar pockets observed. Coal tar-like odor detected. | |
| 10 | 11 | | N/A | N/A | N/A | N/A | 12 | NA | SP | Gray, medium SAND, some medium gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.
 **Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.
 ^Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: **WC-14**

Page 1 of 1

Project #: 500.10.4

Start Date: January 2, 2009

End Date: January 2, 2009

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: R Reynolds
Lightship Rep.: N Shipley, D McGrath

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|---------------------------|----------------------|--------------------|------------------|
| Type: <u>N/A</u> | Type: <u>Aluminum</u> | Date: <u>N/A</u> | Type: <u>N/A</u> | Lat: <u>N/A</u> |
| Size: <u>N/A</u> | Size: <u>20ft, 3" dia</u> | WL (ref): <u>N/A</u> | Size: <u>N/A</u> | Long: <u>N/A</u> |
| Hammer: <u>N/A</u> | Hammer: <u>N/A</u> | WL (bgs): <u>N/A</u> | Length: <u>N/A</u> | Elev: <u>N/A</u> |
| Fall: <u>N/A</u> | Fall: <u>N/A</u> | SW Elev.: <u>N/A</u> | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|---|-----------------|-------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-14* WC-14 (0-11)** WC-14 (11-14)** | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 8 | 10 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 10 | 11 | | N/A N/A N/A N/A | 12 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 11 | 13 | | N/A N/A N/A N/A | 24 | NA | SW | Gray, coarse SAND and gravel. No staining with some coal tar-like odor. | |
| 13 | 14 | | N/A N/A N/A N/A | 12 | NA | SP | Gray, fine SAND, trace coarse gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.
**Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.
^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-15

Page 1 of 1

Project #: 500.10.4

Start Date: January 2, 2009

End Date: January 2, 2009

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: R. Reynolds
Lightship Rep.: N. Shipley, D. McGrath

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|----------------------------|----------------------|--------------------|------------------|
| Type: <u>N/A</u> | Type: <u>Aluminum</u> | Date: <u>N/A</u> | Type: <u>N/A</u> | Lat: <u>N/A</u> |
| Size: <u>N/A</u> | Size: <u>20ft, 3" dia.</u> | WL (ref): <u>N/A</u> | Size: <u>N/A</u> | Long: <u>N/A</u> |
| Hammer: <u>N/A</u> | Hammer: <u>N/A</u> | WL (bgs): <u>N/A</u> | Length: <u>N/A</u> | Elev: <u>N/A</u> |
| Fall: <u>N/A</u> | Fall: <u>N/A</u> | SW Elev.: <u>N/A</u> | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|---|-----------------|-------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-15* WC-15 (0-10)** WC-15 (10-14)** | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 8 | 10 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 10 | 11 | | N/A N/A N/A N/A | 12 | NA | SW | Gray, medium to fine SAND, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 11 | 13 | | N/A N/A N/A N/A | 24 | NA | SP | Gray, medium SAND, trace coarse gravel. No staining with some coal tar-like odor. | |
| 13 | 14 | | N/A N/A N/A N/A | 12 | NA | SP | Gray, fine SAND, trace medium sand. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.
**Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.
^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-16

Page 1 of 1

Project #: 500.10.4

Start Date: January 2, 2009

End Date: January 2, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep: N. Shipley, D. McGrath

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|----------------------------|----------------------|--------------------|------------------|
| Type: <u>N/A</u> | Type: <u>Aluminum</u> | Date: <u>N/A</u> | Type: <u>N/A</u> | Lat: <u>N/A</u> |
| Size: <u>N/A</u> | Size: <u>20ft, 3" dia.</u> | WL (ref): <u>N/A</u> | Size: <u>N/A</u> | Long: <u>N/A</u> |
| Hammer: <u>N/A</u> | Hammer: <u>N/A</u> | WL (bgs): <u>N/A</u> | Length: <u>N/A</u> | Elev: <u>N/A</u> |
| Fall: <u>N/A</u> | Fall: <u>N/A</u> | SW Elev.: <u>N/A</u> | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const |
|-------------|--------------|---|-----------------|-------------------|-------------|------------------|--|------------|
| 0^ | 2 | WC-16* WC-16 (0-12)** WC-16 (12-13)** | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 8 | 10 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 10 | 12 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 12 | 13 | | N/A N/A N/A N/A | 12 | NA | SP | Gray, fine SAND, some medium gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

**Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-17

Page 1 of 1

Project #: 500.10.4

Start Date: January 2, 2009

End Date: January 2, 2009

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: R. Reynolds
Lightship Rep.: N. Shipley, D. McGrath

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|--------------------|---------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat: N/A |
| Size: N/A | Size: 20ft, 3" dia | WL (ref): N/A | Size: N/A | Long: N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): N/A | Length: N/A | Elev: N/A |
| Fall: N/A | Fall: N/A | SW Elev: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|---|-----------------|-------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-17* WC-17 (0-10)** WC-17 (10-15)** | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 8 | 10 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 10 | 12 | | N/A N/A N/A N/A | 24 | NA | SW | Gray, medium to fine SAND, trace medium gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 12 | 13 | | N/A N/A N/A N/A | 12 | NA | SP | Gray, medium SAND and gravel. No staining with some coal tar-like odor. | |
| 13 | 13.8 | | N/A N/A N/A N/A | 9.6 | NA | SP | Gray, fine SAND, trace medium gravel. Coal tar observed. Coal tar-like odor detected. | |
| 13.8 | 15 | | N/A N/A N/A N/A | NA | NA | NA | No Recovery | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.
**Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.
^Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-18

Page 1 of 1

Project #: 500.10.4

Start Date: January 2, 2009

End Date: January 2, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: N. Shipley, D. McGrath

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|----------------------------|-----------------------|--------------------|------------------|
| Type: <u>N/A</u> | Type: <u>Aluminum</u> | Date: <u>N/A</u> | Type: <u>N/A</u> | Lat. <u>N/A</u> |
| Size: <u>N/A</u> | Size: <u>20ft, 3" dia.</u> | WL (ref.): <u>N/A</u> | Size: <u>N/A</u> | Long. <u>N/A</u> |
| Hammer: <u>N/A</u> | Hammer: <u>N/A</u> | WL (bgs): <u>N/A</u> | Length: <u>N/A</u> | Elev. <u>N/A</u> |
| Fall: <u>N/A</u> | Fall: <u>N/A</u> | SW Elev.: <u>N/A</u> | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|--|------------|-----|-----|-----|-------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-18* WC-18 (0-8)** WC-18 (8-9)** | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A | N/A | N/A | N/A | 24 | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 8 | 9 | | N/A | N/A | N/A | N/A | 12 | NA | SW | Gray, medium SAND, trace fine gravel. Coal tar observed. Coal tar-like odor detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.
 **Indicates composite sediment sample from depth range indicated submitted for laboratory analysis.
 ^ Indicates start depth from top of sediment.

CARR-DEE CORP.

37 LINDEN STREET

P.O. BOX 67

MEDFORD, MA 02155-0001

Telephone (781) 391-4500

To: CHARTER ENVIRONMENTAL 72 JONSPIN RD, WILMINTON, MA

Date: 1-13-2009

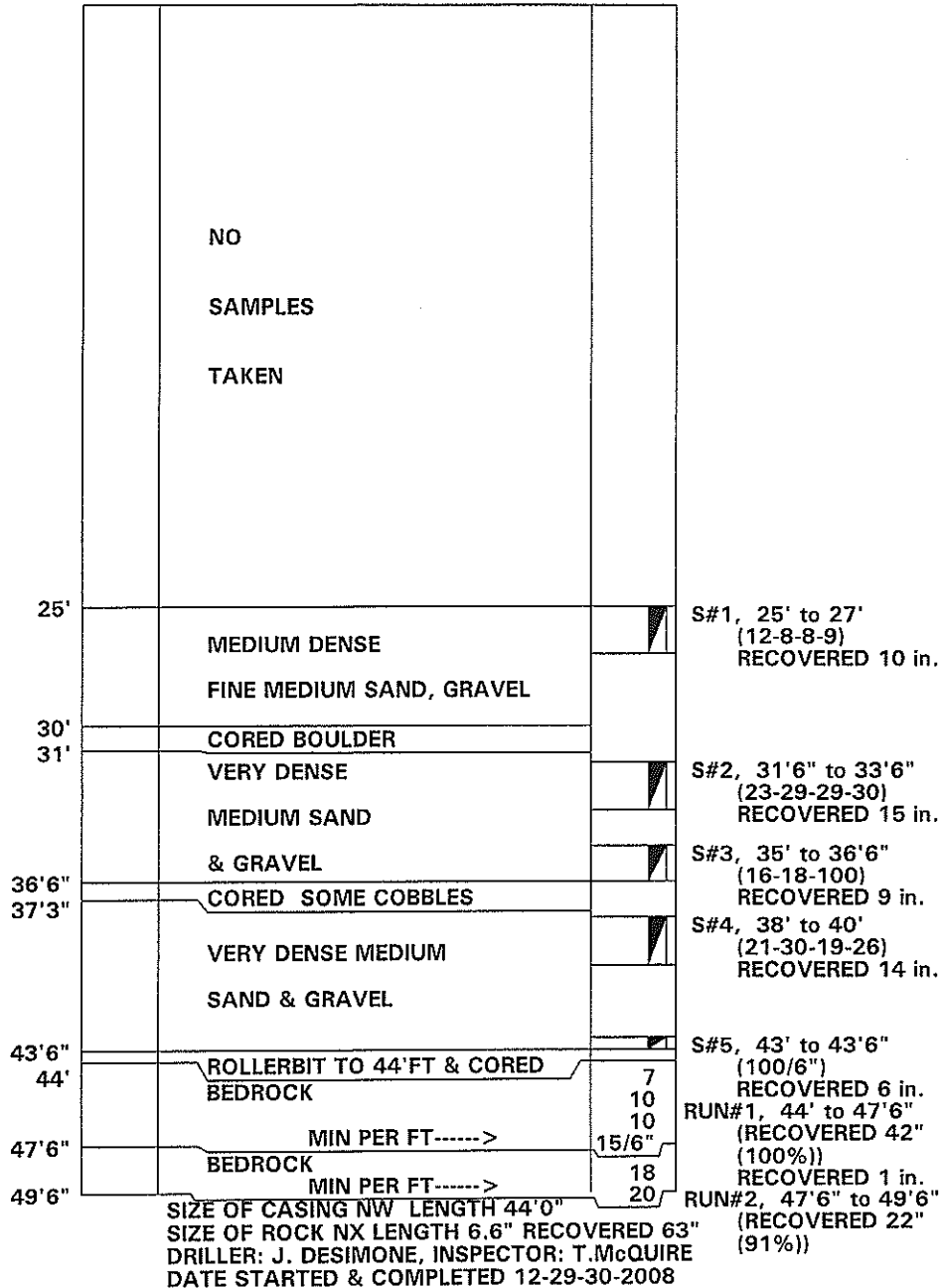
Job No.: 2008-196

Location: 180 MAC ARTHUR DRIVE, NEW BEDFORD, MA

Scale: 1 in. = 8 ft.

BORING C-1

GROUND SURFACE



NOTE: WATER TABLE TIDAL

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches (±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

37 LINDEN STREET

P.O. BOX 67

MEDFORD, MA 02155-0001

Telephone (781) 391-4500

To: CHARTER ENVIRONMENTAL 72 JONSPIN RD, WILMINGTON, MA

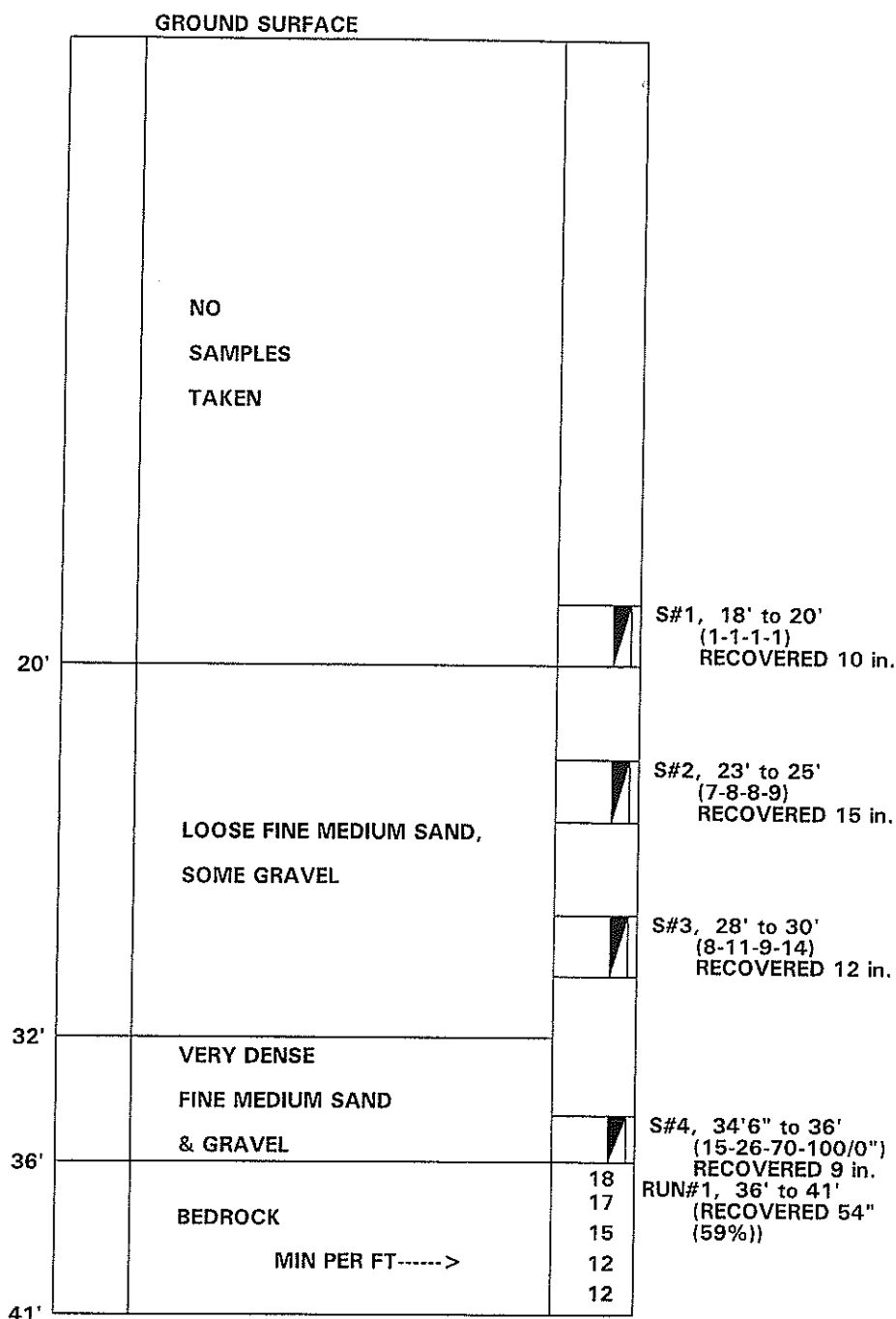
Date: 1-13-2009

Job No.: 2008-196

Location: 180 MAC ARTHUR DRIVE, NEW BEDFORD, MA

Scale: 1 in. = 6 ft.

BORING C-2



SIZE OF CASING NW LENGTH 36'0"
 SIZE OF ROCK NX LENGTH 5'FT RECOVERED 54"
 DRILLER: J. DESIMONE, INSPECTOR: T. MAQUIRE
 DATE STARTED & COMPLETED 12-29-31-2008-1-2-2009

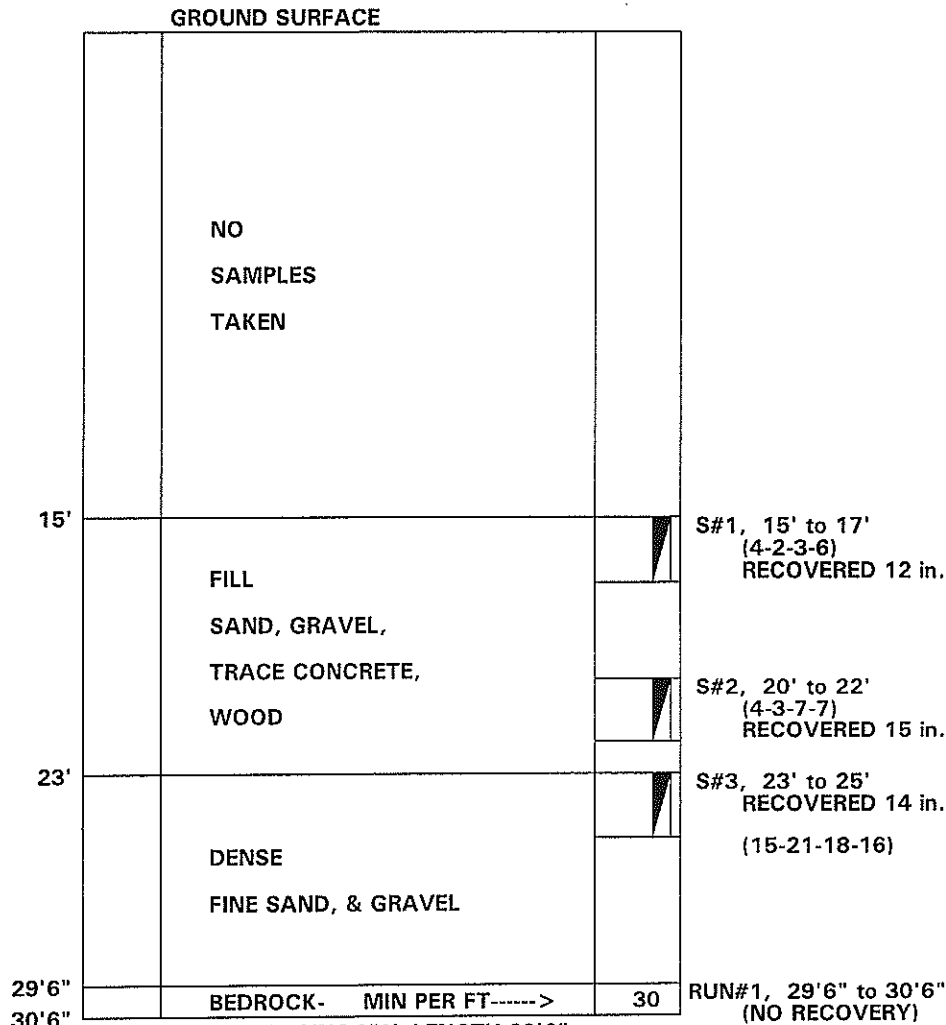
NOTE: WATER TABLE TIDAL

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches (±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

37 LINDEN STREET P.O. BOX 67 MEDFORD, MA 02155-0001 Telephone (781) 391-4500
 To: CHARTER ENVIRONMENTAL 72 JONSPIN RD, WILMINTON, MA Date: 1-13-2009 Job No.: 2008-196
 Location: 180 MAC ARTHUR DRIVE, NEW BEDFORD, MA Scale: 1 in. = 6 ft.

BORING C-3



SIZE OF CASING NW LENGTH 29'6"
 SIZE OF ROCK NX LENGTH 1'FT RECOVERED 0
 DRILLER: J. DESIMONE, INSPECTOR: T. MAQUIRE
 DATE STARTED & COMPLETED 1-5-2009

NOTE: WATER TABLE TIDAL

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches (±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

37 LINDEN STREET P.O. BOX 67 MEDFORD, MA 02155-0001 Telephone (781) 391-4500
 To: CHARTER ENVIRONMENTAL 72 JONSPIN RD, WILMINTON, MA Date: 1-13-2009 Job No.: 2008-196
 Location: 180 MAC ARTHUR DRIVE, NEW BEDFORD, MA Scale: 1 in. = 6 ft.

BORING C-4

| GROUND SURFACE | | |
|----------------|--|--|
| | NO SAMPLES TAKEN | |
| 20' | FILL SAND, GRAVEL | S#1, 20' to 22' (12-11-11-10) RECOVERED 11 in. |
| 24' | MEDIUM DENSE FINE MEDIUM SAND & GRAVEL | S#2, 25' to 27' (19-12-13-11) RECOVERED 10 in. |
| 29'6" | BEDROCK | RUN#1, 29'6" to 32'6" (RECOVERED 21" (58%)) |
| 32'6" | MIN PER FT-----> | |

SIZE OF CASING NW LENGTH 29'6"
 SIZE OF ROCK NX LENGTH 3'FT RECOVERED 21"
 DRILLER: J. DESIMONE, INSPECTOR: T. MAQUIRE
 DATE STARTED & COMPLETED 1-6-2009

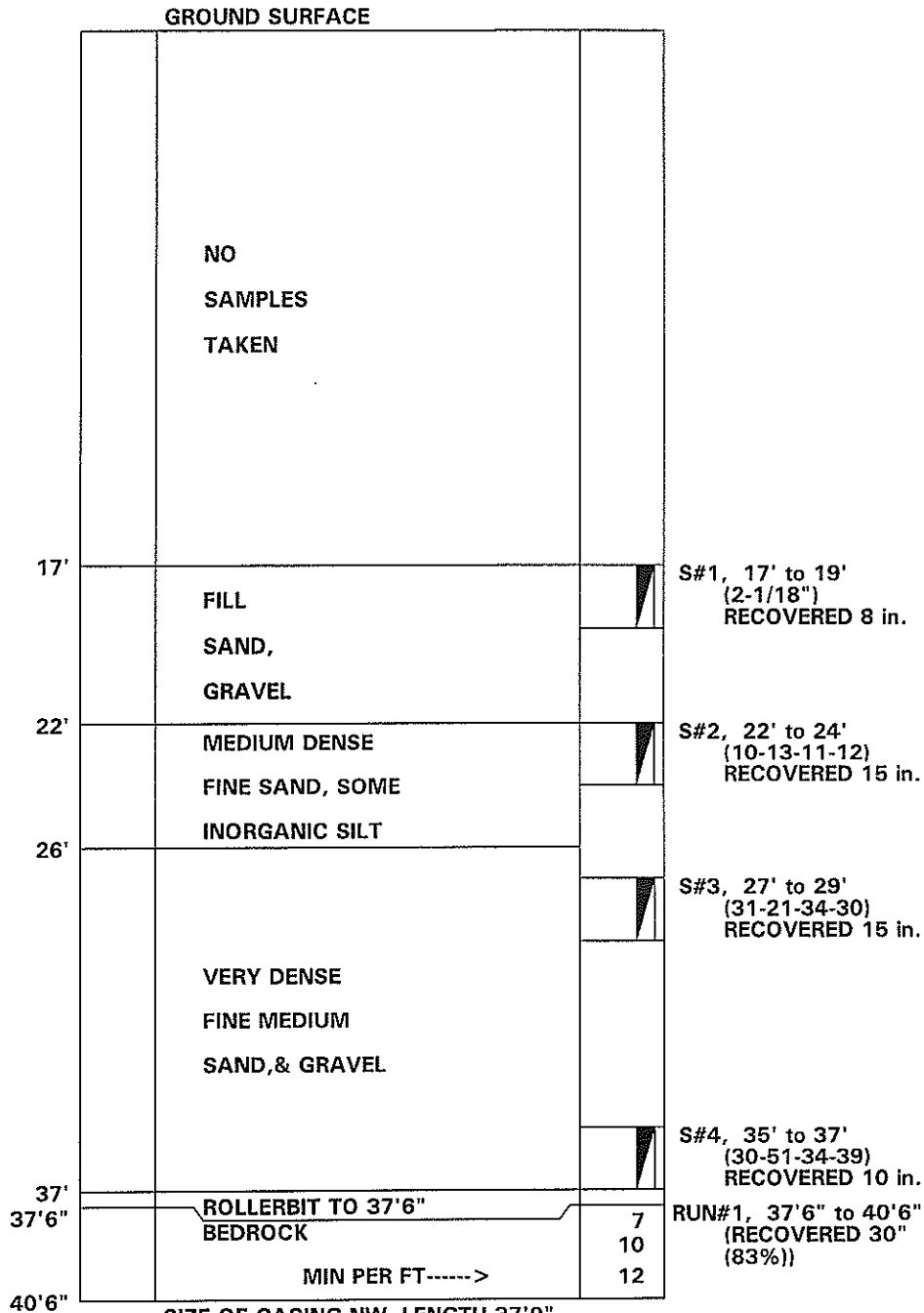
NOTE: WATER TABLE TIDAL

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches (±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

37 LINDEN STREET P.O. BOX 67 MEDFORD, MA 02155-0001 Telephone (781) 391-4500
 To: CHARTER ENVIRONMENTAL 72 JONSPIN RD, WILMINTON, MA Date: 1-13-2009 Job No.: 2008-196
 Location: 180 MAC ARTHUR DRIVE, NEW BEDFORD, MA Scale: 1 in. = 6 ft.

BORING C-5



SIZE OF CASING NW LENGTH 37'0"
 SIZE OF ROCK NX LENGTH 3'FT RECOVERED 30"
 DRILLER: J. DESIMONE, INSPECTOR: T. MAQUIRE
 DATE STARTED & COMPLETED 1-7-2009

NOTE: WATER TABLE TIDAL

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches (±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

CARR-DEE CORP.

37 LINDEN STREET

P.O. BOX 67

MEDFORD, MA 02155-0001

Telephone (781) 391-4500

To: CHARTER ENVIRONMENTAL 72 JONSPIN RD, WILMINTON, MA

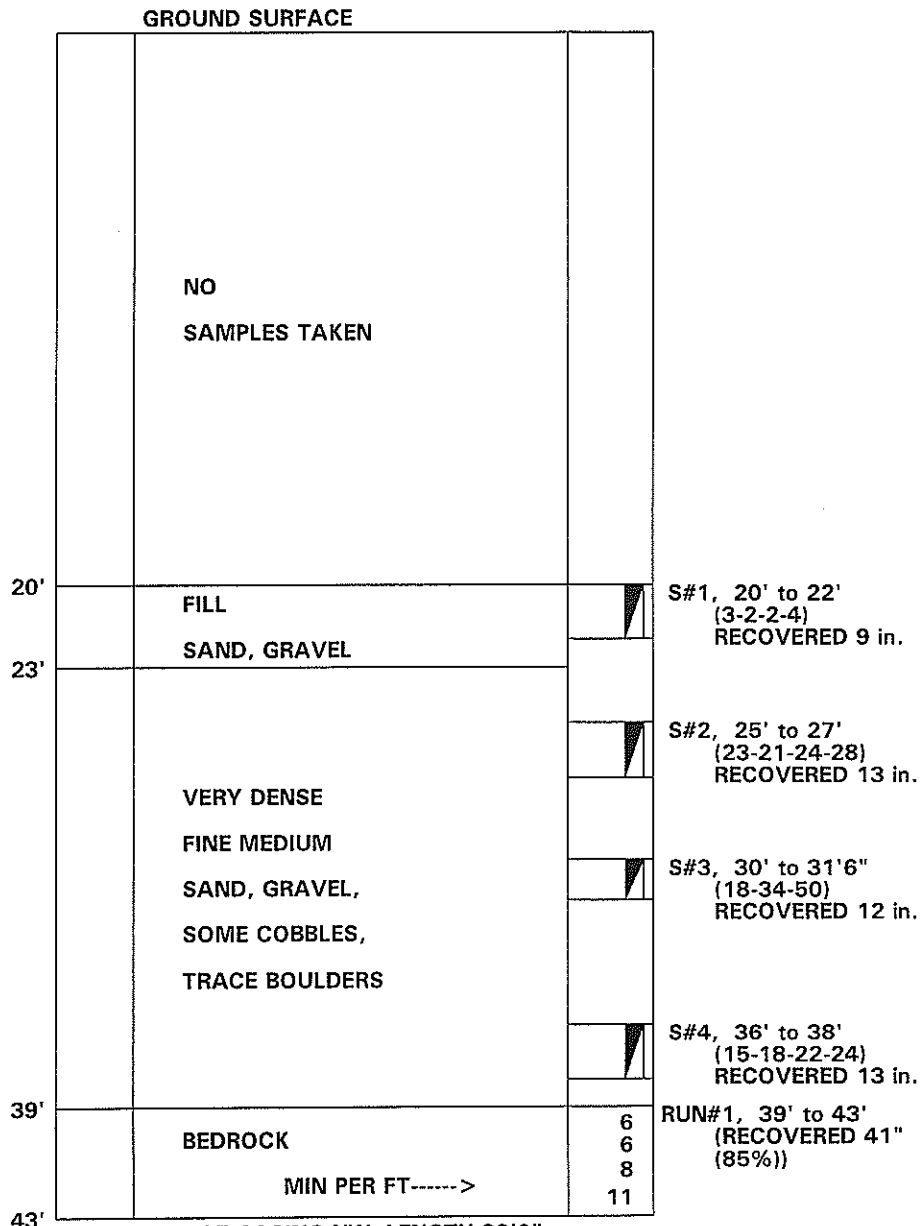
Date: 1-13-2009

Job No.: 2008-196

Location: 180 MAC ARTHUR DRIVE, NEW BEDFORD, MA

Scale: 1 in. = 7 ft.

BORING C-6



SIZE OF CASING NW LENGTH 39'0"
 SIZE OF ROCK NX LENGTH 4'FT RECOVERED 41"
 DRILLER: J. DESIMONE, INSPECTOR: T.MAQUIRE
 DATE STARTED & COMPLETED 1-8-9-2009

NOTE: WATER TABLE TIDAL

NOTE: CORED BOULDER FROM 33'FT TO 33'9"

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

37 LINDEN STREET P.O. BOX 67 MEDFORD, MA 02155-0001 Telephone (781) 391-4500
To: CHARTER ENVIRONMENTAL 72 JONSPIN RD, WILMINTON, MA Date: 1-13-2009 Job No.: 2008-196
Location: 180 MAC ARTHUR DRIVE, NEW BEDFORD, MA Scale: 1 in. = 7 ft.

GROUND SURFACE

| | | | |
|-------|--------------------------------|------------------------------|---|
| 37' | NO SAMPLES TAKEN | | |
| 40'9" | BEDROCK MIN PER FT-----> | 5 8 11 15'9" | RUN#1, 37' to 40'9" (RECOVERED 26" (57%)) |
| 42'9" | BEDROCK MIN PER FT-----> | 7 6 | RUN 2, 40'9" to 42'9" (RECOVERED 19" (79%)) |

SIZE OF CASING NW LENGTH 37'0"
 SIZE OF ROCK NX LENGTH 5'9" RECOVERED 45"
 DRILLER: J. DESIMONE, INSPECTOR: T. MAQUIRE
 DATE STARTED & COMPLETED 1-9-2009

All samples have been visually classified by DRILLER. Unless otherwise specified, water levels noted were observed at completion of borings, and do not necessarily represent permanent ground water levels. Figures in parenthesis indicate the number of blows required to drive Two-inch Split Sampler 6 inches using 140 lb. weight falling 30 inches(±). Figures in column to left (if noted) indicate number of blows to drive casing one foot, using 300 lb. weight falling 24 inches (±).

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-19

Page 1 of 1

Project #: 500.10.4

Start Date: April 23, 2009

End Date: April 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | WC-19* | N/A | N/A | N/A | N/A | 12 | NA | SM | Black, organic fine to medium SAND and SILT. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 12 | NA | SM | Black, organic fine to medium SAND and SILT. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 12 | NA | SM | Black, organic fine to medium SAND and SILT. Organic-coal tar-like odor detected. | |
| 6 | 8 | | N/A | N/A | N/A | N/A | 12 | NA | SM | Black, organic fine to medium SAND and SILT. Organic-coal tar-like odor detected. | |
| 8 | 10 | | N/A | N/A | N/A | N/A | 12 | NA | SM | Black, organic fine to medium SAND and SILT. Organic-coal tar-like odor detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis for PCBs.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-20

Page 1 of 1

Project #: 500.10.4

Start Date: April 23, 2009

End Date: April 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | WC-20* | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic fine SILTY SAND, trace fine gravel. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic fine SILTY SAND, trace fine gravel. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic fine SILTY SAND, trace fine gravel. Organic-coal tar-like odor detected. | |
| 6 | 8 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic fine SILTY SAND, trace fine gravel. Organic-coal tar-like odor detected. | |
| 8 | 9 | | N/A | N/A | N/A | N/A | 12 | NA | SM | Black, organic fine SILTY SAND, trace fine gravel. Organic-coal tar-like odor detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis for PCBs.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-21

Page 1 of 1

Project #: 500.10.4

Start Date: April 23, 2009

End Date: April 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | WC-21* | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic fine SAND, little silt, trace gravel. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic fine SAND, little silt, trace gravel. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic fine SAND, little silt, trace gravel. Organic-coal tar-like odor detected. | |
| 6 | 8 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic fine SAND, little silt, trace gravel. Organic-coal tar-like odor detected. | |
| 8 | 8.5 | | N/A | N/A | N/A | N/A | 6 | NA | SM | Black, organic fine SAND, little silt, trace gravel. Organic-coal tar-like odor detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis for PCBs.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-22

Page 1 of 1

Project #: 500.10.4

Start Date: April 23, 2009

End Date: April 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|---------------------|----------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 20ft, 3" dia. | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): N/A | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace med sand and gravel. Organic-coal tar-like odor detected, coal tar pockets observed. | |
| 2 | 4 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace med sand and gravel. Organic-coal tar-like odor detected, coal tar pockets observed. | |
| 4 | 6 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace med sand and gravel. Organic-coal tar-like odor detected, coal tar pockets observed. | |
| 6 | 8 | | N/A N/A N/A N/A | 24 | NA | OL | Black, organic SILT, trace med sand and gravel. Organic-coal tar-like odor detected, coal tar pockets observed. | |

Notes: ^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-23

Page 1 of 1

Project #: 500.10.4

Start Date: April 23, 2009

End Date: April 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic fine SAND and SILT, trace medium sand and gravel. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic fine SAND and SILT, trace medium sand and gravel. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic fine SAND and SILT, trace medium sand and gravel. Organic-coal tar-like odor detected. | |
| 6 | 8 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic fine SAND and SILT, trace medium sand and gravel. Organic-coal tar-like odor detected. | |
| 8 | 10 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic fine SAND and SILT, trace medium sand and gravel. Organic-coal tar-like odor detected. | |
| 10 | 10.5 | | N/A | N/A | N/A | N/A | 6 | NA | SM | Black, organic fine SAND and SILT, trace medium sand and gravel. Organic-coal tar-like odor detected. | |

Notes: ^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-24

Page 1 of 1

Project #: 500.10.4

Start Date: April 23, 2009

End Date: April 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------------|-------------|------------------|--|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic SANDY SILT, trace gravel. Organic-coal tar-like odor and coal tar pockets detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic SANDY SILT, trace gravel. Organic-coal tar-like odor and coal tar pockets detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic SANDY SILT, trace gravel. Organic-coal tar-like odor and coal tar pockets detected. | |
| 6 | 8 | | N/A | N/A | N/A | N/A | 24 | NA | SM | Black, organic SANDY SILT, trace gravel. Organic-coal tar-like odor and coal tar pockets detected. | |
| 8 | 8.5 | | N/A | N/A | N/A | N/A | 6 | NA | SM | Black, organic SANDY SILT, trace gravel. Organic-coal tar-like odor and coal tar pockets detected. | |

Notes: ^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-25

Page 1 of 1

Project #: 500.10.4

Start Date: April 23, 2009

End Date: April 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|---------------------|----------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 20ft, 3" dia. | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): N/A | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-------------------|-------------|------------------|--|-------------|
| 0^ | 2 | | N/A N/A N/A N/A | 24 | NA | SM | Black, organic SANDY SILT, some medium sand and gravel. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 24 | NA | SM | Black, organic SANDY SILT, some medium sand and gravel. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 24 | NA | SM | Black, organic SANDY SILT, some medium sand and gravel. Organic-coal tar-like odor detected. | |
| 6 | 7.5 | | N/A N/A N/A N/A | 24 | NA | SP | Brownish Gray COARSE SAND, little fine sand and gravel. Coal tar pockets observed. | |

Notes: ^ Indicates start depth from top of sediment..

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-26

Page 1 of 1

Project #: 500.10.4

Start Date: April 23, 2009

End Date: April 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers, D. McGrath

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|---------------------|----------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 20ft, 3" dia. | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): N/A | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-------------------|-------------|------------------|--|-------------|
| 0^ | 2 | | N/A N/A N/A N/A | 23 | NA | ML | Black, organic fine SAND and SILT, some medium sand and gravel. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 23 | NA | ML | Black, organic fine SAND and SILT, some medium sand and gravel. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 23 | NA | ML | Black, organic fine SAND and SILT, some medium sand and gravel. Organic-coal tar-like odor detected. | |
| 6 | 8 | | N/A N/A N/A N/A | 23 | NA | ML | Black, organic fine SAND and SILT, some medium sand and gravel. Organic-coal tar-like odor detected. | |
| 8 | 9 | | N/A N/A N/A N/A | 10 | NA | ML | Black, organic fine SAND and SILT, some medium sand and gravel. Organic-coal tar-like odor detected. | |
| 9 | 10 | | N/A N/A N/A N/A | 12 | NA | SW | Brown coarse SAND and GRAVEL. Coal tar pockets observed. | |
| 10 | 12 | | N/A N/A N/A N/A | 6 | NA | SW | Brown coarse SAND and GRAVEL. Coal tar pockets observed. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis for VOCs, SVOCs, RCRA 8 metals, TPH, total sulfur, and total cyanide.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-27

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Project #: 500.10.4

Start Date: April 23, 2009

End Date: April 23, 2009

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: R. Reynolds
Lightship Rep.: T. Remmers. D. McGrath

City: New Bedford State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|----------------------------|-----------------------|--------------------|------------------|
| Type: <u>N/A</u> | Type: <u>Aluminum</u> | Date: <u>N/A</u> | Type: <u>N/A</u> | Lat. <u>N/A</u> |
| Size: <u>N/A</u> | Size: <u>20ft, 3" dia.</u> | WL (ref.): <u>N/A</u> | Size: <u>N/A</u> | Long. <u>N/A</u> |
| Hammer: <u>N/A</u> | Hammer: <u>N/A</u> | WL (bgs): <u>N/A</u> | Length: <u>N/A</u> | Elev. <u>N/A</u> |
| Fall: <u>N/A</u> | Fall: <u>N/A</u> | SW Elev.: <u>N/A</u> | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A N/A N/A N/A | 19 | NA | ML | Black, organic fine to medium SAND and SILT, trace coarse sand and gravel. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 19 | NA | ML | Black, organic fine to medium SAND and SILT, trace coarse sand and gravel. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 19 | NA | ML | Black, organic fine to medium SAND and SILT, trace coarse sand and gravel. Organic-coal tar-like odor detected. | |
| 6 | 8 | | N/A N/A N/A N/A | 19 | NA | ML | Black, organic fine to medium SAND and SILT, trace coarse sand and gravel. Organic-coal tar-like odor detected. | |
| 8 | 10 | | N/A N/A N/A N/A | 19 | NA | ML | Black, organic fine to medium SAND and SILT, trace coarse sand and gravel. Organic-coal tar-like odor detected. | |
| 10 | 12 | | N/A N/A N/A N/A | 19 | NA | SM | Black, organic fine to medium SAND and SILT, trace coarse sand and gravel. Organic-coal tar-like odor detected. | |
| 12 | 13.3 | | N/A N/A N/A N/A | 16 | NA | SM | Light brown coarse SAND, some fine sand. Coal tar pockets detected. | |

Notes: ^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-28

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Project #: 500.10.4

Start Date: April 23, 2009

End Date: April 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | | | Surface Water | | Core | | Survey | |
|-------------|--------------|-----------|---------------|-----|-----|---------------|-------------------|-------------|------------------|--|------------|
| Type: | N/A | Type: | Aluminum | | | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | | | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | | | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | | | SW Elev.: | N/A | | | | |
| | | | | | | | | | | | |
| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const |
| 0^ | 2 | | N/A | N/A | N/A | N/A | 24 | NA | ML | Black, organic fine SANDY SILT, some medium sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 24 | NA | ML | Black, organic fine SANDY SILT, some medium sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 24 | NA | ML | Black, organic fine SANDY SILT, some medium sand. Organic-coal tar-like odor detected. | |
| 6 | 8 | | N/A | N/A | N/A | N/A | 24 | NA | ML | Black, organic fine SANDY SILT, some medium sand. Organic-coal tar-like odor detected. | |
| 8 | 10 | | N/A | N/A | N/A | N/A | 24 | NA | SW | Light brown medium to coarse SAND, some gravel. Coal tar pockets detected. | |
| 10 | 12 | | N/A | N/A | N/A | N/A | 24 | NA | SW | Light brown medium to coarse SAND, some gravel. Coal tar pockets detected. | |
| 12 | 14 | | N/A | N/A | N/A | N/A | 6 | NA | SW | Light brown medium to coarse SAND, some gravel. Coal tar pockets detected. | |

Notes: ^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-29

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Project #: 500.10.4

Start Date: April 24, 2009

End Date: April 24, 2009

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: R. Reynolds
Lightship Rep.: T. Remmers, D. McGrath

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|---------------------|----------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 20ft, 3" dia. | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): N/A | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A N/A N/A N/A | 21 | NA | ML | Black, organic fine to medium SAND and SILT, trace coarse sand and gravel. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 21 | NA | ML | Black, organic fine to medium SAND and SILT, trace coarse sand and gravel. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 21 | NA | ML | Black, organic fine to medium SAND and SILT, trace coarse sand and gravel. Organic-coal tar-like odor detected. | |
| 6 | 8 | | N/A N/A N/A N/A | 21 | NA | ML | Black, organic fine to medium SAND and SILT, trace coarse sand and gravel. Organic-coal tar-like odor detected. | |
| 8 | 8.5 | | N/A N/A N/A N/A | 6 | NA | SW | Ligh brown coarse SAND, trace fine sand. Coal tar pockets detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis for VOCs, SVOCs, RCRA 8 metals, TPH, total sulfur, and total cyanide.
^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-30

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Project #: 500.10.4

Start Date: April 24, 2009

End Date: April 24, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | 23 | NA | ML | Black, organic fine SILTY SAND, trace medium sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | 23 | NA | ML | Black, organic fine SILTY SAND, trace medium sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | 23 | NA | ML | Black, organic fine SILTY SAND, trace medium sand. Organic-coal tar-like odor detected. | |
| 6 | 8 | | N/A | N/A | N/A | N/A | 23 | NA | ML | Black, organic fine SILTY SAND, trace medium sand. Organic-coal tar-like odor detected. | |
| 8 | 9.6 | | N/A | N/A | N/A | N/A | 19 | NA | ML | Black, organic fine SILTY SAND, trace medium sand. Organic-coal tar-like odor detected. | |
| 9.6 | 10 | | N/A | N/A | N/A | N/A | 5 | NA | SW | Brown medium to coarse SAND and GRAVEL, trace fine sand. Coal tar pockets detected. | |

Notes: ^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-31

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Project #: 500.10.4

Start Date: April 24, 2009

End Date: April 24, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|---------------------|----------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 20ft, 3" dia. | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): N/A | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A N/A N/A N/A | 19 | NA | ML | Black, organic fine SILTY SAND, trace medium sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 19 | NA | ML | Black, organic fine SILTY SAND, trace medium sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 19 | NA | ML | Black, organic fine SILTY SAND, trace medium sand. Organic-coal tar-like odor detected. | |
| 6 | 7.5 | | N/A N/A N/A N/A | 14 | NA | ML | Black, organic fine SILTY SAND, trace medium sand. Organic-coal tar-like odor detected. | |
| 7.5 | 8 | | N/A N/A N/A N/A | 6 | NA | SP | Brown coarse SAND, some medium sand. Coal tar pockets detected. | |

Notes: ^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-32

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Project #: 500.10.4

Start Date: April 24, 2009

End Date: April 24, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|---------------------|----------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 20ft, 3" dia. | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): N/A | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A N/A N/A N/A | 22 | NA | OL | Black, organic fine SANDY SILT, trace medium sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 22 | NA | OL | Black, organic fine SANDY SILT, trace medium sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 22 | NA | OL | Black, organic fine SANDY SILT, trace medium sand. Organic-coal tar-like odor detected. | |
| 6 | 7.5 | | N/A N/A N/A N/A | 16 | NA | OL | Black, organic fine SANDY SILT, trace medium sand. Organic-coal tar-like odor detected. | |
| 7.5 | 8 | | N/A N/A N/A N/A | 6 | NA | SM | Brown coarse SAND, some medium sand and gravel. Coal tar pockets detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis for VOCs, SVOCs, RCRA 8 metals, TPH, total sulfur, and total cyanide.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: WC-33

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Project #: 500.10.4

Start Date: April 24, 2009

End Date: April 24, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (inches) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-------------------|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A N/A N/A N/A | 20 | NA | ML | Black, organic fine SILTY SAND, some medium sand, trace coarse sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | 20 | NA | ML | Black, organic fine SILTY SAND, some medium sand, trace coarse sand. Organic-coal tar-like odor detected. | |
| 4 | 6 | | N/A N/A N/A N/A | 20 | NA | ML | Black, organic fine SILTY SAND, some medium sand, trace coarse sand. Organic-coal tar-like odor detected. | |
| 6 | 8 | | N/A N/A N/A N/A | 20 | NA | ML | Black, organic fine SILTY SAND, some medium sand, trace coarse sand. Organic-coal tar-like odor detected. | |
| 8 | 10 | | N/A N/A N/A N/A | 20 | NA | ML | Black, organic fine SILTY SAND, some medium sand, trace coarse sand. Organic-coal tar-like odor detected. | |
| 10 | 11.5 | | N/A N/A N/A N/A | 18 | NA | SM | Grayish brown medium to coarse SAND and GRAVEL. Coal tar pockets detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis for PCBs.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-1A

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Project #: 500.10.9

Start Date: October 22, 2009

End Date: October 22, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-1A* | N/A N/A N/A N/A | 6.5/11' | NA | OL | Black, organic SILT, trace fine sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 6 | 8 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 8 | 10 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 10 | 11 | | N/A N/A N/A N/A | | NA | SW | Black/brown, fine to coarse SAND. Organic-coal tar-like odor detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-2A

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Project #: 500.10.9

Start Date: October 22, 2009

End Date: October 22, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-2A* | N/A N/A N/A N/A | 8'/12' | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 6 | 8 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 8 | 10 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 10 | 12 | | N/A N/A N/A N/A | | NA | SW | Gray, fine to coarse SAND, trace fine gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-3A

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Project #: 500.10.9

Start Date: October 22, 2009

End Date: October 22, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-3A* | N/A N/A N/A N/A | 10/13' | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 6 | 7 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 7 | 9 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 9 | 11 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 11 | 13 | | N/A N/A N/A N/A | | NA | SW | Gray, fine to coarse SAND, trace fine gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-4A

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Project #: 500.10.9

Start Date: October 22, 2009

End Date: October 22, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-4A* | N/A N/A N/A N/A | 10/12.7' | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 6 | 7 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 7 | 9 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 9 | 11 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 11 | 12.7 | | N/A N/A N/A N/A | | NA | SW | Gray, fine to coarse SAND, trace fine gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-5A

Page 1 of 1

Project #: 500.10.9

Start Date: October 22, 2009

End Date: October 22, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T Remmers. D. McGrath

Casing

Type: N/A

Size: N/A

Hammer: N/A

Fall: N/A

Sampler

Type: Aluminum

Size: 20ft, 3" dia.

Hammer: N/A

Fall: N/A

Surface Water

Date: N/A

WL (ref.): N/A

WL (bgs): N/A

SW Elev.: N/A

Core

Type: N/A

Size: N/A

Length: N/A

Survey

Lat. N/A

Long. N/A

Elev. N/A

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-5A* | N/A | 12'/13' | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A | | NA | OL | Black, organic SILT, some medium sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A | | NA | OL | Same as above. | |
| 8 | 10 | | N/A | | NA | OL | Same as above. | |
| 10 | 12 | | N/A | | NA | OL | Same as above. | |
| 12 | 13 | | N/A | | NA | SW | Gray, fine to coarse SAND, trace coarse gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-6A

Page 1 of 1

Project #: 500.10.9

Start Date: October 23, 2009

End Date: October 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers D. McGrath

Casing

Type: N/A

Size: N/A

Hammer: N/A

Fall: N/A

Sampler

Type: Aluminum

Size: 20ft, 3" dia.

Hammer: N/A

Fall: N/A

Surface Water

Date: N/A

WL (ref.): N/A

WL (bgs): N/A

SW Elev.: N/A

Core

Type: N/A

Size: N/A

Length: N/A

Survey

Lat. N/A

Long. N/A

Elev. N/A

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-6A* | N/A | 9'/12' | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A | | NA | OL | Black, organic SILT, trace sand, trace gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A | | NA | OL | Same as above. | |
| 8 | 10 | | N/A | | NA | OL | Same as above. | |
| 10 | 12 | | N/A | | NA | SW | Gray, fine to coarse SAND, trace coarse gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-7A

Page 1 of 1

Project #: 500.10.9

Start Date: October 23, 2009

End Date: October 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----------------------------|-------------|------------------|---|-------------|
| 0^ | 2 | WC-7A* | N/A | 11'14' | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | | NA | OL | Same as above | |
| 4 | 6 | | N/A | | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A | | NA | OL | Same as above | |
| 8 | 10 | | N/A | | NA | OL | Same as above | |
| 10 | 12 | | N/A | | NA | SW | Gray, fine to coarse SAND, trace coarse gravel. No staining with some coal tar-like odor. | |
| 12 | 14 | | N/A | | NA | SW | Same as above | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP

ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-8A

Page 1 of 1

Project #: 500.10.9

Start Date: October 23, 2009

End Date: October 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

Casing

Type: N/A

Size: N/A

Hammer: N/A

Fall: N/A

Sampler

Type: Aluminum

Size: 20ft, 3" dia.

Hammer: N/A

Fall: N/A

Surface Water

Date: N/A

WL (ref.): N/A

WL (bgs): N/A

SW Elev.: N/A

Core

Type: N/A

Size: N/A

Length: N/A

Survey

Lat. N/A

Long. N/A

Elev. N/A

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-8A* | N/A | 9'/10' | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A | | NA | OL | Black, organic SILT, trace sand. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A | | NA | OL | Same as above. | |
| 8 | 10 | | N/A | | NA | SW | Gray, fine to medium SAND, trace fine gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP

ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-9A

Page 1 of 1

Project #: 500.10.9

Start Date: October 23, 2009

End Date: October 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

Casing

Type: N/A

Size: N/A

Hammer: N/A

Fall: N/A

Sampler

Type: Aluminum

Size: 20ft, 3" dia.

Hammer: N/A

Fall: N/A

Surface Water

Date: N/A

WL (ref.): N/A

WL (bgs): N/A

SW Elev.: N/A

Core

Type: N/A

Size: N/A

Length: N/A

Survey

Lat. N/A

Long. N/A

Elev. N/A

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----------------------------|-------------|------------------|---|-------------|
| 0^ | 2 | WC-9A* | N/A | 9'/12' | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A | | NA | SW | Gray, fine SAND, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 7 | | N/A | | NA | OL | Same as above. | |
| 7 | 8 | | N/A | | NA | OL | Same as above. | |
| 8 | 10 | | N/A | | NA | SW | Gray, fine to coarse SAND, trace medium gravel. No staining with some coal tar-like odor. | |
| 10 | 12 | | N/A | | NA | SW | Gray, fine to coarse SAND, trace medium gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-10A

Page 1 of 1

Project #: 500.10.9

Start Date: October 22, 2009

End Date: October 22, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers D. McGrath

Casing

Type: N/A

Size: N/A

Hammer: N/A

Fall: N/A

Sampler

Type: Aluminum

Size: 20ft, 3" dia.

Hammer: N/A

Fall: N/A

Surface Water

Date: N/A

WL (ref.): N/A

WL (bgs): N/A

SW Elev.: N/A

Core

Type: N/A

Size: N/A

Length: N/A

Survey

Lat. N/A

Long. N/A

Elev. N/A

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-10A* | N/A | 8'/13' | NA | OL | Black, organic SILT, trace fine sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A | | NA | OL | Same as above. | |
| 6 | 8 | | N/A | | NA | OL | Same as above. | |
| 8 | 10 | | N/A | | NA | SW | Black/brown, fine to coarse SAND, trace gravel. Organic-coal tar-like odor detected. | |
| 10 | 13 | | N/A | | NA | SW | Same as above. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-11A

Page 1 of 1

Project #: 500.10.9

Start Date: October 22, 2009

End Date: October 22, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers D. McGrath

Casing

Type: N/A

Size: N/A

Hammer: N/A

Fall: N/A

Sampler

Type: Aluminum

Size: 20ft, 3" dia.

Hammer: N/A

Fall: N/A

Surface Water

Date: N/A

WL (ref.): N/A

WL (bgs): N/A

SW Elev.: N/A

Core

Type: N/A

Size: N/A

Length: N/A

Survey

Lat. N/A

Long. N/A

Elev. N/A

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-11A* | N/A | 5'9' | NA | OL | Black, organic SILT, trace silt. Coal tar pockets observed. Coal tar-like odor detected. | |
| 2 | 4 | | N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A | | NA | OL | Same as above. | |
| 6 | 8 | | N/A | | NA | OL | Black, fine to coarse SAND, little gravel. Coal tar-like odor detected. | |
| 8 | 9 | | N/A | | NA | SW | Same as above. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-12A

Page 1 of 1

Project #: 500.10.9

Start Date: October 22, 2009

End Date: October 22, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers D. McGrath

Casing

Type: N/A

Size: N/A

Hammer: N/A

Fall: N/A

Sampler

Type: Aluminum

Size: 20ft, 3" dia.

Hammer: N/A

Fall: N/A

Surface Water

Date: N/A

WL (ref.): N/A

WL (bgs): N/A

SW Elev.: N/A

Core

Type: N/A

Size: N/A

Length: N/A

Survey

Lat. N/A

Long. N/A

Elev. N/A

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-----------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-12A* | N/A N/A N/A N/A | 10/13' | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 6 | 8 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 8 | 10 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 10 | 12 | | N/A N/A N/A N/A | | NA | SW | Gray, fine to coarse SAND, some medium gravel. No staining with some coal tar-like odor. | |
| 12 | 13 | | N/A N/A N/A N/A | | NA | SW | Same as above. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP

ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-13A

Page 1 of 1

Project #: 500.10.9

Start Date: October 22, 2009

End Date: October 22, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers D. McGrath

Casing

Type: N/A

Size: N/A

Hammer: N/A

Fall: N/A

Sampler

Type: Aluminum

Size: 20ft, 3" dia.

Hammer: N/A

Fall: N/A

Surface Water

Date: N/A

WL (ref.): N/A

WL (bgs): N/A

SW Elev.: N/A

Core

Type: N/A

Size: N/A

Length: N/A

Survey

Lat. N/A

Long. N/A

Elev. N/A

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-13A* | N/A | 12'/13' | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 2 | 4 | | N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A | | NA | OL | Same as above. | |
| 6 | 8 | | N/A | | NA | OL | Same as above. | |
| 8 | 10 | | N/A | | NA | OL | Same as above. | |
| 10 | 12 | | N/A | | NA | OL | Same as above. | |
| 12 | 13 | | N/A | | NA | SP | Gray, fine to coarse SAND, some medium gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-14A

Page 1 of 1

Project #: 500.10.9

Start Date: October 22, 2009

End Date: October 22, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers D. McGrath

Casing

Type: N/A

Size: N/A

Hammer: N/A

Fall: N/A

Sampler

Type: Aluminum

Size: 20ft, 3" dia.

Hammer: N/A

Fall: N/A

Surface Water

Date: N/A

WL (ref.): N/A

WL (bgs): N/A

SW Elev.: N/A

Core

Type: N/A

Size: N/A

Length: N/A

Survey

Lat. N/A

Long. N/A

Elev. N/A

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-14A* | N/A | 12'/13' | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A | | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A | | NA | OL | Same as above. | |
| 8 | 10 | | N/A | | NA | OL | Same as above. | |
| 10 | 12 | | N/A | | NA | OL | Same as above. | |
| 12 | 13 | | N/A | | NA | SW | Gray, fine to coarse SAND and gravel. No staining with some coal tar-like odor. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-15A

Page 1 of 1

Project #: 500.10.9

Start Date: October 23, 2009

End Date: October 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers. D. McGrath

Casing

Type: N/A

Size: N/A

Hammer: N/A

Fall: N/A

Sampler

Type: Aluminum

Size: 20ft, 3" dia.

Hammer: N/A

Fall: N/A

Surface Water

Date: N/A

WL (ref.): N/A

WL (bgs): N/A

SW Elev.: N/A

Core

Type: N/A

Size: N/A

Length: N/A

Survey

Lat. N/A

Long. N/A

Elev. N/A

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-15A* | N/A | 10/12' | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A | | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A | | NA | OL | Same as above. | |
| 8 | 10 | | N/A | | NA | OL | Same as above. | |
| 10 | 12 | | N/A | | NA | SW | Gray, fine to coarse SAND, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-16A

Page 1 of 1

Project #: 500.10.9

Start Date: October 23, 2009

End Date: October 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|---------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 20ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-16A* | N/A N/A N/A N/A | 9'/12' | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A N/A N/A N/A | | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 8 | 10 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 10 | 12 | | N/A N/A N/A N/A | | NA | SW | Black, fine to coarse SAND, some gravel. Coal tar-like odor detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

Client Name: NSTAR
 Project Name: Slip Area
 Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
 Drilling Method: Vibratory Core
 Driller: R. Reynolds
 Lightship Rep.: T. Remmers D. McGrath

City: New Bedford State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|----------------------------|-----------------------|--------------------|------------------|
| Type: <u>N/A</u> | Type: <u>Aluminum</u> | Date: <u>N/A</u> | Type: <u>N/A</u> | Lat. <u>N/A</u> |
| Size: <u>N/A</u> | Size: <u>20ft, 3" dia.</u> | WL (ref.): <u>N/A</u> | Size: <u>N/A</u> | Long. <u>N/A</u> |
| Hammer: <u>N/A</u> | Hammer: <u>N/A</u> | WL (bgs): <u>N/A</u> | Length: <u>N/A</u> | Elev. <u>N/A</u> |
| Fall: <u>N/A</u> | Fall: <u>N/A</u> | SW Elev.: <u>N/A</u> | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-17A* | N/A N/A N/A N/A | 9'/11' | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A N/A N/A N/A | | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 8 | 10 | | N/A N/A N/A N/A | | NA | OL | Same as above. | |
| 10 | 11 | | N/A N/A N/A N/A | | NA | SW | Gray, medium to fine SAND, trace medium gravel. Coal tar pockets observed. Coal tar-like odor detected. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: WC-18A

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Project #: 500.10.9

Start Date: October 23, 2009

End Date: October 23, 2009

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford

State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: R. Reynolds

Lightship Rep.: T. Remmers D. McGrath

Casing

Type: N/A

Size: N/A

Hammer: N/A

Fall: N/A

Sampler

Type: Aluminum

Size: 20ft, 3" dia.

Hammer: N/A

Fall: N/A

Surface Water

Date: N/A

WL (ref.): N/A

WL (bgs): N/A

SW Elev.: N/A

Core

Type: N/A

Size: N/A

Length: N/A

Survey

Lat. N/A

Long. N/A

Elev. N/A

| Start Depth | Finish Depth | Sample ID | Blow Count | Recovery/Penetration (feet) | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----------------------------|-------------|------------------|--|-------------|
| 0^ | 2 | WC-18A* | N/A | 11'/13' | NA | OL | Black, organic SILT, trace sand. Organic-coal tar-like odor detected. | |
| 2 | 4 | | N/A | | NA | OL | Same as above. | |
| 4 | 6 | | N/A | | NA | OL | Black, organic SILT, trace fine sand, trace fine gravel. Coal tar pockets observed. Coal tar-like odor detected. | |
| 6 | 8 | | N/A | | NA | OL | Same as above. | |
| 8 | 10 | | N/A | | NA | SW | Gray, fine to coarse SAND, trace fine gravel. Coal tar observed. Coal tar-like odor detected. | |
| 10 | 12 | | N/A | | NA | SW | Same as above. | |
| 12 | 13 | | N/A | | NA | SW | Same as above. | |

Notes: *Indicates composite sediment sample from entire core submitted for laboratory analysis.

^ Indicates start depth from top of sediment.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-1

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Project #: 500.10.4

Start Date: January 28, 2010

End Date: January 28, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|--|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | ML | Black TAR and SILT. | |
| 2 | 3.5 | | N/A | N/A | N/A | N/A | NA | SW | Gray coarse SAND and GRAVEL. MGP residual. | |

Notes: ^ Indicates start depth from top of sediment.

NA - Not Applicable.

Sheen generated during extraction of sediment core sampler.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-2

Page 1 of 1

Project #: 500.10.4

Start Date: January 28, 2010

End Date: January 28, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | | | Surface Water | | Core | | Survey | |
|-------------|--------------|-----------|----------------|-----|-----|---------------|-------------|------------------|---|--------|-------------|
| Type: | N/A | Type: | Aluminum | | | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | | | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | | | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | | | SW Elev.: | N/A | | | | |
| | | | | | | | | | | | |
| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | | Well Const. |
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | ML | Black TAR and SILT. | | |
| 2 | 4 | | N/A | N/A | N/A | N/A | NA | ML | (2 - 3 feet) Black TAR and SILT. | | |
| | | | | | | | | | (3 - 4 feet) Gray coarse SAND and GRAVEL. MGP residual. | | |
| 4 | 6 | | N/A | N/A | N/A | N/A | NA | SW | Gray coarse SAND and GRAVEL. MGP residual. | | |
| 6 | 8 | | N/A | N/A | N/A | N/A | NA | SW | Gray coarse SAND and GRAVEL. MGP residual. | | |
| 8 | 9 | N/A | N/A | N/A | N/A | N/A | NA | SW | Gray coarse SAND and GRAVEL. MGP residual. | | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

Sheen generated during extraction of sediment core sampler.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-3

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Project #: 500.10.4

Start Date: January 28, 2010

End Date: January 28, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|--|--|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | | | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | | | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | | | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | | | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. | |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|--|-------------|--|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | ML | (0 - 0.5 feet) Black TAR and SILT. | | |
| | | | | | | | | | (0.5 - 2 feet) Black SILTY SAND, some Tar. | | |
| 2 | 4 | | N/A | N/A | N/A | N/A | NA | ML/SW | (2 - 3 feet) Black SILTY SAND, some Tar. | | |
| | | | | | | | | | (3 - 4 feet) Gray fine SAND, some medium SAND. MGP residual. | | |
| 4 | 6.7 | | N/A | N/A | N/A | N/A | NA | SP | Gray fine SAND, some medium SAND. MGP residual. | | |
| | | | | | | | | | | | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

Sheen generated during extraction of sediment core sampler.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-4

Page 1 of 1

Project #: 500.10.4

Start Date: January 28, 2010

End Date: January 28, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|--|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | ML | (0 - 1 feet) Black SILTY SAND and TAR. | |
| | | | | | | | | | (1 - 2 feet) Gray fine SAND. MGP residual. | |
| 2 | 3.5 | | N/A | N/A | N/A | N/A | NA | SP | Gray fine SAND. MGP residual. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-5

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Project #: 500.10.4

Start Date: January 28, 2010

End Date: January 28, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|--|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | ML | Brown to black SILTY SAND. MGP residual. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | NA | SP | Gray coarse SAND, some fine gravel. No visible MGP residual. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | NA | SP | Gray medium to fine SAND. No visible MGP residual. | |
| 6 | 8 | | N/A | N/A | N/A | N/A | NA | SP | Gray medium to fine SAND. No visible MGP residual. | |
| 8 | 9.6 | | N/A | N/A | N/A | N/A | NA | SP | Gray medium to fine SAND. No visible MGP residual. | |

Notes: ^Indicates start depth from top of sediment.
NA - Not Applicable.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-6

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Project #: 500.10.4

Start Date: January 28, 2010

End Date: January 28, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-------------|------------------|--|-------------|
| 0^ | 2 | | N/A N/A N/A N/A | NA | ML | Black TAR, SILTY SAND and ORGANICS. | |
| 2 | 4 | | N/A N/A N/A N/A | NA | ML | (2 - 3 feet) Black TAR, SILTY SAND and ORGANICS. (3 - 4 feet) Black TAR, medium SAND and SILT. | |
| 4 | 6 | | N/A N/A N/A N/A | NA | ML | (4 - 5 feet) Black TAR, medium SAND and SILT. (5 - 6 feet) Black SILT, trace sand. MGP residual. | |
| 6 | 8 | | N/A N/A N/A N/A | NA | ML | Black SILT, trace sand. MGP residual. | |
| 8 | 9.6 | | N/A N/A N/A N/A | NA | ML/SW | (8 - 9 feet) Black SILT, trace sand. MGP residual. (9 - 9.6 feet) Grayish black coarse SAND and GRAVEL. Trace MGP residual. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

Sheen generated during extraction of sediment core sampler.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-7

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Project #: 500.10.4

Start Date: January 28, 2010

End Date: January 28, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|-----------------------------|-----------------------|--------------------|------------------|
| Type: <u>N/A</u> | Type: <u>Aluminum</u> | Date: <u>N/A</u> | Type: <u>N/A</u> | Lat. <u>N/A</u> |
| Size: <u>N/A</u> | Size: <u>10 ft, 3" dia.</u> | WL (ref.): <u>N/A</u> | Size: <u>N/A</u> | Long. <u>N/A</u> |
| Hammer: <u>N/A</u> | Hammer: <u>N/A</u> | WL (bgs): <u>N/A</u> | Length: <u>N/A</u> | Elev. <u>N/A</u> |
| Fall: <u>N/A</u> | Fall: <u>N/A</u> | SW Elev.: <u>N/A</u> | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | ML/SW | (0 - 1 feet) Black fine SAND and SILT. MGP residual. | |
| | | | | | | | | | (1 - 2 feet) Black to gray medium to coarse SAND. MGP residual. | |
| 2 | 3 | | N/A | N/A | N/A | N/A | NA | SW | Black to gray medium to coarse SAND. MGP residual. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-8

Page 1 of 1

Project #: 500.10.4

Start Date: January 29, 2010

End Date: January 29, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|-----------------------------|-----------------------|--------------------|------------------|
| Type: <u>N/A</u> | Type: <u>Aluminum</u> | Date: <u>N/A</u> | Type: <u>N/A</u> | Lat. <u>N/A</u> |
| Size: <u>N/A</u> | Size: <u>10 ft, 3" dia.</u> | WL (ref.): <u>N/A</u> | Size: <u>N/A</u> | Long. <u>N/A</u> |
| Hammer: <u>N/A</u> | Hammer: <u>N/A</u> | WL (bgs): <u>N/A</u> | Length: <u>N/A</u> | Elev. <u>N/A</u> |
| Fall: <u>N/A</u> | Fall: <u>N/A</u> | SW Elev.: <u>N/A</u> | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | SM | (0 - 1 feet) Black SANDY SILT, some Tar. | |
| | | | | | | | | | (1 - 2 feet) Black fine SAND and SILT, some Tar. | |
| 2 | 4.8 | | N/A | N/A | N/A | N/A | NA | SW | Black coarse SAND and GRAVEL, trace silt. MGP residual. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-9

Page 1 of 1

Project #: 500.10.4

Start Date: January 29, 2010

End Date: January 29, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|--|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | ML/SM | (0 - 1 feet) Black SILTY SAND, ORGANICS, some Tar. | |
| | | | | | | | | | (1 - 2 feet) Gray fine SAND, some silt. No visible MGP residual. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | NA | SM/SP | (2 - 3 feet) Black SILT, trace fine sand. Trace MGP residual. (3 - 4 feet) Gray fine SAND, trace silt. No visible MGP residual. | |
| 4 | 6.5 | | N/A | N/A | N/A | N/A | NA | SW | Gray medium to coarse SAND. No visible MGP residual. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-10

Page 1 of 1

Project #: 500.10.4

Start Date: January 29, 2010

End Date: January 29, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | Sampler | Surface Water | Core | Survey |
|--------------------|-----------------------------|-----------------------|--------------------|------------------|
| Type: <u>N/A</u> | Type: <u>Aluminum</u> | Date: <u>N/A</u> | Type: <u>N/A</u> | Lat. <u>N/A</u> |
| Size: <u>N/A</u> | Size: <u>10 ft, 3" dia.</u> | WL (ref.): <u>N/A</u> | Size: <u>N/A</u> | Long. <u>N/A</u> |
| Hammer: <u>N/A</u> | Hammer: <u>N/A</u> | WL (bgs): <u>N/A</u> | Length: <u>N/A</u> | Elev. <u>N/A</u> |
| Fall: <u>N/A</u> | Fall: <u>N/A</u> | SW Elev.: <u>N/A</u> | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-------------|------------------|--|-------------|
| 0^ | 1.5 | | N/A N/A N/A N/A | NA | SM | Black SILTY SAND, some Tar. | |
| 1.5 | 3.5 | | N/A N/A N/A N/A | NA | SW | Black coarse SAND, trace fine sand and gravel. MGP residual. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-11

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Project #: 500.10.4

Start Date: January 29, 2010

End Date: January 29, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|--|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | ML | (0 - 1 feet) Black SAND and SILT, little organics, little Tar. | |
| | | | | | | | | | (1 - 2 feet) Black SILT and TAR. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | NA | ML | Black SILT, little Tar. | |
| 4 | 5.3 | | N/A | N/A | N/A | N/A | NA | ML/SW | Gray coarse SAND and GRAVEL. MGP residual. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

Sheen generated during extraction of sediment core sampler.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-12

Page 1 of 1

Project #: 500.10.4

Start Date: January 29, 2010

End Date: January 29, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

City: New Bedford

State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|----------------------|----------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 10 ft, 3" dia. | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): N/A | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|--|------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | SM | Black SANDY SILT, some Tar. | |
| 2 | 3.5 | | N/A | N/A | N/A | N/A | NA | ML/SM/SW | (2 - 2.5 feet) Black SILT, some tar, trace fine sand. | |
| | | | | | | | | | (2.5 - 2.6 feet) Black TAR and SILT. | |
| | | | | | | | | | (2.6 - 3 feet) Black SILT, some tar, trace fine sand. | |
| | | | | | | | | | (3 - 3.5 feet) Gray fine to med. SAND, trace silt. MGP residual. | |

Notes: ^Indicates start depth from top of sediment.
NA - Not Applicable.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-13

Page 1 of 1

Project #: 500.10.4

Start Date: January 29, 2010

End Date: January 29, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|--|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | ML/SW | (0 - 1 feet) Brown to black SILTY SAND. Trace MGP residual. | |
| | | | | | | | | | (1 - 2 feet) Brown fine to medium SAND. No visible MGP residual. | |
| 2 | 3.5 | | N/A | N/A | N/A | N/A | NA | SW | Brown fine to medium SAND. No visible MGP residual. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-14

Page 1 of 1

Project #: 500.10.4

Start Date: January 29, 2010

End Date: January 29, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|---|-------------|
| 0^ | 1.5 | | N/A | N/A | N/A | N/A | NA | ML | Brown to black SILTY SAND and ORGANICS, some Tar. | |
| 1.5 | 3.5 | | N/A | N/A | N/A | N/A | NA | ML/SW | Brown to black fine SAND, trace silt, trace Tar. | |
| 3.5 | 5 | | N/A | N/A | N/A | N/A | NA | SW | Gray medium to fine SAND, trace gravel. Trace MGP residual. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-15

Page 1 of 1

Project #: 500.10.4

Start Date: February 1, 2010

End Date: February 1, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | SP | Black medium SAND and ORGANICS, trace fine sand, trace Tar. | |
| 2 | 3.5 | | N/A | N/A | N/A | N/A | NA | SM/SP | (2 - 2.5 feet) Black SILTY SAND and TAR. | |
| | | | | | | | | | (2.5 - 3.5 feet) Black coarse SAND, some Tar. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-16

Page 1 of 1

Project #: 500.10.4

Start Date: February 1, 2010

End Date: February 1, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | SP/SW | (0 - 1 feet) Brown to black medium SAND and Organics, some Tar. (1 - 2 feet) Brown medium to coarse SAND. No visible MGP residual. | |

Notes: ^Indicates start depth from top of sediment.
NA - Not Applicable.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-17

Page 1 of 1

Project #: 500.10.4

Start Date: February 1, 2010

End Date: February 1, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | SP | Brownish gray medium SAND. MGP residual. | |
| 2 | 3.5 | | N/A | N/A | N/A | N/A | NA | ML/SP | (2 - 2.5 feet) Black TAR and SILT. (2.5 - 3.5 feet) Brownish gray medium SAND. MGP residual. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-18

Page 1 of 1

Project #: 500.10.4

Start Date: February 1, 2010

End Date: February 1, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | SW | Grayish brown medium to coarse SAND. MGP residual. | |
| 2 | 4.5 | | N/A | N/A | N/A | N/A | NA | SW | Grayish brown coarse SAND, some medium sand and gravel. MGP residual. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-19

Page 1 of 1

Project #: 500.10.4

Start Date: February 1, 2010

End Date: February 1, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|--|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | SP | Black medium sand, some Tar. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | NA | SP | Black TAR, some medium sand. | |
| 4 | 5.7 | | N/A | N/A | N/A | N/A | NA | SP | (4 - 5 feet) Black TAR, some medium sand. | |
| | | | | | | | | | (5 - 5.7 feet) Gray coarse SAND. MGP residual. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

Sheen generated during extraction of sediment core sampler.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core ID: OSA-TS-20

Page 1 of 1

Project #: 500.10.4

Start Date: February 1, 2010

End Date: February 1, 2010

Client Name: NSTAR
Project Name: Slip Area
Site Address: 180 MacArthur Drive

Drilling Co.: TG&B Marine Services
Drilling Method: Vibratory Core
Driller: L. Perry
Lightship Rep.: T. Remmers. D. McGrath

City: New Bedford State: Massachusetts

| Casing | Sampler | Surface Water | Core | Survey |
|-------------|----------------------|----------------|-------------|-----------|
| Type: N/A | Type: Aluminum | Date: N/A | Type: N/A | Lat. N/A |
| Size: N/A | Size: 10 ft, 3" dia. | WL (ref.): N/A | Size: N/A | Long. N/A |
| Hammer: N/A | Hammer: N/A | WL (bgs): N/A | Length: N/A | Elev. N/A |
| Fall: N/A | Fall: N/A | SW Elev.: N/A | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|-----------------|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A N/A N/A N/A | NA | ML/SW | (0 - 1.5 feet) Black SANDY SILT, some Tar. | |
| | | | | | | (1.5 - 2 feet) Black to gray med. SAND, trace silt. M | |
| 2 | 3.5 | | N/A N/A N/A N/A | NA | SW | (2 - 3 feet) Black to gray medium SAND, trace silt. Trace MGP residual. | |
| | | | | | | (3 - 3.5 feet) Gray coarse SAND. Trace MGP residual. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-21

Page 1 of 1

Project #: 500.10.4

Start Date: February 1, 2010

End Date: February 1, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|---|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | ML | (0 - 1.5 feet) Black medium SAND, some Tar. | |
| | | | | | | | | | (1.5 - 2 feet) Black TAR, trace silt and organics. | |
| 2 | 4 | | N/A | N/A | N/A | N/A | NA | ML/SW | (2 - 2.5 feet) Black TAR, trace silt and organics. | |
| | | | | | | | | | (2.5 - 4 feet) Gray coarse SAND, trace medium sand. MGP residual. | |
| 4 | 6 | | N/A | N/A | N/A | N/A | NA | SW | Gray coarse SAND, trace medium sand. MGP residual. | |
| 6 | 8.2 | | N/A | N/A | N/A | N/A | NA | SW | Black coarse SAND, some medium sand, some Tar. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

Sheen generated during extraction of sediment core sampler.

LIGHTSHIP ENGINEERING

ENVIRONMENTAL & LAND-USE CONSULTANTS

Sediment Core
ID: OSA-TS-22

Page 1 of 1

Project #: 500.10.4

Start Date: February 1, 2010

End Date: February 1, 2010

Client Name: NSTAR

Project Name: Slip Area

Site Address: 180 MacArthur Drive

City: New Bedford State: Massachusetts

Drilling Co.: TG&B Marine Services

Drilling Method: Vibratory Core

Driller: L. Perry

Lightship Rep.: T. Remmers. D. McGrath

| Casing | | Sampler | | Surface Water | | Core | | Survey | |
|---------|-----|---------|----------------|---------------|-----|---------|-----|--------|-----|
| Type: | N/A | Type: | Aluminum | Date: | N/A | Type: | N/A | Lat. | N/A |
| Size: | N/A | Size: | 10 ft, 3" dia. | WL (ref.): | N/A | Size: | N/A | Long. | N/A |
| Hammer: | N/A | Hammer: | N/A | WL (bgs): | N/A | Length: | N/A | Elev. | N/A |
| Fall: | N/A | Fall: | N/A | SW Elev.: | N/A | | | | |

| Start Depth | Finish Depth | Sample ID | Blow Count | | | | TOVs (ppmv) | Lithology (USCS) | Description | Well Const. |
|-------------|--------------|-----------|------------|-----|-----|-----|-------------|------------------|--|-------------|
| 0^ | 2 | | N/A | N/A | N/A | N/A | NA | ML | (0 - 1 feet) Black medium SAND, some Tar. | |
| | | | | | | | | | (1 - 2 feet) Black TAR and SILT. | |
| 2 | 4.6 | | N/A | N/A | N/A | N/A | NA | ML/SW | (2 - 3 feet) Black TAR and SILT. | |
| | | | | | | | | | (3 - 4.6 feet) Black to gray coarse SAND, trace medium sand. MGP residual. | |

Notes: ^Indicates start depth from top of sediment.

NA - Not Applicable.

| | |
|---|---|
| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248314.38</u> NORTHING: <u>820277.82</u> LOCATION: <u>Inner Slip</u> | BORING ISBC-1 PAGE 1 of 1 |
|---|---|

| | | | |
|--|--|---------------------------------|--|
| Drilling Information | | | |
| DATE START / END: <u>4/23/2010 - 4/23/2010</u> | | TOTAL DEPTH (FT): <u>11.0</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> | | DRILLER: <u>E. Perrone</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | LOGGED BY: <u>B. Coulombe</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> | | BORING METHOD: <u>Vibracore</u> | |
| CASING ID/OD: <u>3.50 in / 3.50 in</u> | | | |
| HAMMER TYPE: <u>N/A</u> | | HAMMER WEIGHT (lbs): <u>N/A</u> | |
| HAMMER DROP (inch): <u>N/A</u> | | | |
| DEPTH TO SEDIMENT (ft): <u>14.5</u> | | | |
| GENERAL NOTES: <u>Density = 83.5 lbs/ft³</u> | | | |

ABBREVIATIONS:

| | | | |
|---------------------------|-----------------------------|-----------------------------|---------------------------------------|
| ID = Inside Diameter | U = Undisturbed Tube Sample | WOH = Weight of Hammer | NA, NM = Not Applicable, Not Measured |
| OD = Outside Diameter | C = Rock Core | OVM = Organic Vapor Meter | H2S = Hydrogen Sulfide Like Odor |
| Pen. = Penetration Length | S = Split Spoon | PLO = Petroleum Like Odor | |
| Rec. = Recovery Length | DP = Direct Push Sample | NLO = Naphthalene Like Odor | |

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|------------|------------|--------------------|------------|------|-----------------|-----------------------|-----------------|-------------|--|--|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | 0 to 11 | S1 | | | 11.0 / 6.9 | 62.7 | NM | | 0.0-9.9': SILT (ML); ~95% fines, ~5% fine sand, trace clinkers, trace gravel near bottom, uniform tar coating, NLO, black. | Composite sample BS-1 collected from 0.0 to 11.0' in bucket 1 of 3. |
| 2 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 10 | | S2 | | | | | NM | | 9.9-11.0': WIDELY GRADED SAND (SW); ~100% fine to coarse sand, tar saturated, black stringers, some brown coating, NLO, black. | |
| 12 | | | | | | | | | End of Boring at 11 feet | Heavy sheen and coal-tar coating observed on outside of core barrel. Heavy sheen observed on surface water. Blobs of tar observed in sand and gravel in core barrel tip. |
| 14 | | | | | | | | | | |

| | | |
|---|---|--|
| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
|---|---|--|

sediment 01 100920 NSTAR.GPJ GEI DATA TEMPLATE.GDT 5/25/10

Boring LocationHORIZONTAL DATUM: NAD83 MA Mainland Zone GROUND SURFACE ELEVATION (FT): _____EASTING: 248316.08NORTHING: 820279.57LOCATION: Inner Slip

BORING

ISBC-2

PAGE 1 of 1

Drilling InformationDATE START / END: 4/23/2010 - 4/23/2010TOTAL DEPTH (FT): 11.0CONTRACTOR: CR Environmental, Inc.DRILLER: E. PerroneLOGGED BY: B. CoulombeEQUIPMENT: Lophius; 26-foot aluminium research vesselBORING METHOD: VibracoreAUGER ID/OD: N/A / N/ACASING ID/OD: 3.5 in / 3.5 inHAMMER TYPE: N/AHAMMER WEIGHT (lbs): N/AHAMMER DROP (Inch): N/ADEPTH TO SEDIMENT (ft): 14.4 12/30/1899 8:14 amGENERAL NOTES: Density = 73.6 lbs/ft³

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|------|-----------------------|-----------------------------|-------------|--|---|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | | | |
| | | S1 | 0 to 11 | | 11.0 / 6.0 | 54.5 | | 0.0-7.8': SILT (ML); ~95% fines, ~5% fine sand ranging from fine at top of strata and coarse at bottom, loose, brown tar staining from 4.0-7.8', NLO, tar pockets and stringers throughout, black. | Composite sample BS-1 collected from 0.0 to 11.0' in bucket 2 of 3. |
| 2 | | | | | | | | | |
| 4 | | | | | | | | | |
| 6 | | | | | | | | | |
| 8 | | S2 | | | | | | 7.8-11.0': SILT (ML); ~95% fines, ~5% fine to coarse sand, fully coated with tar, twigs, sand and some gravel in tip, NLO, black. | |
| 10 | | | | | | | | | |
| 12 | | | | | | | | End of Boring at 11 feet | Refusal at 11'. Heavy sheen and coal-tar coating observed on outside of core barrel. Heavy sheen noted on surface water. Blobs of tar observed in sand and gravel in core barrel tip. |
| 14 | | | | | | | | | |

Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times.

CLIENT: NSTARPROJECT NAME: NSTAR New Bedford Service CenterCITY/STATE: New Bedford, MAGEI PROJECT NUMBER: 10092-0**GEI**

GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
781-721-4000

| | |
|---|--|
| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248314.85</u> NORTHING: <u>820278.55</u> LOCATION: <u>Inner Slip</u> | BORING ISBC-3 PAGE 1 of 1 |
|---|--|

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|--|--|--------------------------------------|--|
| Drilling Information | | | |
| DATE START / END: <u>4/23/2010 - 4/23/2010</u> | | TOTAL DEPTH (FT): <u>12.0</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> | | DRILLER: <u>E. Perrone</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | LOGGED BY: <u>B. Carlson</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> | | BORING METHOD: <u>Vibracore</u> | |
| HAMMER TYPE: <u>N/A</u> | | CASING ID/OD: <u>3.5 in / 3.5 in</u> | |
| HAMMER WEIGHT (lbs): <u>N/A</u> | | HAMMER DROP (inch): <u>N/A</u> | |
| DEPTH TO SEDIMENT (ft): <u>▽ 14.2 12/30/1899 8:29 am</u> | | | |
| GENERAL NOTES: <u>Density = 86.9 lbs/ft³</u> | | | |

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|------|-----------------------|-----------------------------|-----------------------|-------------|---|--|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 12 | | 12.0 / 6.8 | 56.7 | NM | | 0.0-10.9': SILT (ML); ~95% fines, ~5% fine sand near top of strata to coarse sand near bottom, blebs and veins of tar throughout, tar saturated from 6.2 to 8', trace organic material, NLO, stained black. | Composite sample BS-2 collected from 3.0 to 7.9' in bucket 1 of 3. |
| | 2 | | | | | | | | | |
| | 4 | | | | | | | | | |
| | 6 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 10 | | | | | | | | | |
| | | S2 | | | | | NM | | 10.9-12.0': SILTY SAND (SM); ~75% fine to coarse sand, ~20% fines, ~10% gravel ~1" in diameter, NLO brown with black tar staining. | |
| | 12 | | | | | | | | End of Boring at 12 feet | Heavy sheen and coal-tar coating on outside of core barrel. Heavy sheen noted on surface water, and blobs of tar observed in sand and gravel in core barrel tip. |
| | 14 | | | | | | | | | |

| | | | |
|---|---|----------------------------|---|
| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants | GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
|---|---|----------------------------|---|

sediment 01 100920 NSTAR.GPJ GEI DATA TEMPLATE.GDT 5/25/10

Boring Location

HORIZONTAL DATUM: NAD83 MA Mainland Zone GROUND SURFACE ELEVATION (FT): _____
EASTING: 248308.86 NORTHING: 820278.69
LOCATION: Inner Slip

BORING

ISBC-4

PAGE 1 of 1

Drilling InformationDATE START / END: 4/23/2010 - 4/23/2010TOTAL DEPTH (FT): 9.0CONTRACTOR: CR Environmental, Inc.DRILLER: E. PerroneLOGGED BY: B. CarlsonEQUIPMENT: Lophius: 26-foot aluminium research vesselBORING METHOD: VibracoreAUGER ID/OD: N/A / N/ACASING ID/OD: 3.5 in / 3.5 inHAMMER TYPE: N/AHAMMER WEIGHT (lbs): N/AHAMMER DROP (Inch): N/ADEPTH TO SEDIMENT (ft): ▽ 13.6 12/30/1899 11:00 amGENERAL NOTES: Density = 80.3 lbs/ft³

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|------|-----------------------|-----------------------------|-----------------------|-------------|---|---|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 9 | | 9.0 / 5.5 | 61.1 | NM | | 0.0-9.0': SILT (ML); ~95% fines, ~5% fine sand near top of strata to coarse sand near bottom, blebs and veins of tar throughout, staining on sleeve from 2.6 to 9', trace shells, NLO, stained black. | Composite sample BS-2 collected from 2.6 to 9.0' in bucket 2 of 3. |
| 2 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 10 | | | | | | | | | End of Boring at 9 feet | Strong NLO. Heavy sheen and coal-tar coating observed on outside of core barrel. Sand, gravel, and tar observed in core barrel tip. |
| 12 | | | | | | | | | | |
| 14 | | | | | | | | | | |

Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times.

CLIENT: NSTARPROJECT NAME: NSTAR New Bedford Service CenterCITY/STATE: New Bedford, MAGEI PROJECT NUMBER: 10092-0**GEI**

GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
781-721-4000

Boring Location
HORIZONTAL DATUM: NAD83 MA Mainland Zone GROUND SURFACE ELEVATION (FT): _____
EASTING: 248309.51 NORTHING: 820278.74
LOCATION: Inner Slip

BORING

ISBC-5

PAGE 1 of 1

Drilling Information
DATE START / END: 4/23/2010 - 4/23/2010 TOTAL DEPTH (FT): 12.0
CONTRACTOR: CR Environmental, Inc. DRILLER: E. Perrone LOGGED BY: B. Carlson
EQUIPMENT: Lophius: 26-foot aluminium research vessel BORING METHOD: Vibracore
AUGER ID/OD: N/A / N/A CASING ID/OD: 3.5 in / 3.5 in
HAMMER TYPE: N/A HAMMER WEIGHT (lbs): N/A HAMMER DROP (inch): N/A
DEPTH TO SEDIMENT (ft): 13.8 12/30/1899 11:14 am
GENERAL NOTES: Density = 82.6 lbs/ft³

| | | | | |
|----------------|--|--|---|---|
| ABBREVIATIONS: | ID = Inside Diameter OD = Outside Diameter Pen. = Penetration Length Rec. = Recovery Length | U = Undisturbed Tube Sample C = Rock Core S = Split Spoon DP = Direct Push Sample | WOH = Weight of Hammer OVM = Organic Vapor Meter PLO = Petroleum Like Odor NLO = Naphthalene Like Odor | NA, NM = Not Applicable, Not Measured H2S = Hydrogen Sulfide Like Odor |
|----------------|--|--|---|---|

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|------------|------|-----------------|-----------------------|-----------------|-------------|--|---|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 12 | | 12.0 / 5.8 | 48.3 | NM | | 0.0-10.4': SILT (ML); ~95% fines, ~5% fine sand near top of strata to coarse sand near bottom, blebs and veins of tar throughout, staining on sleeve from 3.3 to 10.3', trace shells, metal fragments, NLO, stained black. | Composite sample BS-2 collected from 3.3 to 10.3' in bucket 3 of 3. |
| 2 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 10 | | S2 | | | | | NM | | 10.4-11.6': WIDELY GRADED SAND (SW); ~100% fine to coarse sand, tar, NLO, stained brown and black. | |
| 12 | | S3 | | | | | NM | | 11.6-12.0': WIDELY GRADED SAND WITH GRAVEL (SW); ~75% fine to coarse sand, ~25% gravel <1.5" in diameter, tar, NLO, stained brown and black. | |
| 14 | | | | | | | | | End of Boring at 12 feet | Refusal at 12 feet. Strong NLO and sheen observed on core. Sand, gravel, and coal tar observed in tip of core barrel. |

Boring Location
HORIZONTAL DATUM: NAD83 MA Mainland Zone **GROUND SURFACE ELEVATION (FT):** _____
EASTING: 248347.31 **NORTHING:** 820286.73
LOCATION: Outer Slip

BORING
T0-1
PAGE 1 of 1

Drilling Information
DATE START / END: 4/21/2010 - 4/21/2010 **TOTAL DEPTH (FT):** 3.2
CONTRACTOR: CR Environmental, Inc. **DRILLER:** E. Perrone **LOGGED BY:** B. Carlson
EQUIPMENT: Lophius: 26-foot aluminium research vessel **BORING METHOD:** Push Core
AUGER ID/OD: N/A / N/A **CASING ID/OD:** 2.625 in / 2.75 in
HAMMER TYPE: N/A **HAMMER WEIGHT (lbs):** N/A **HAMMER DROP (inch):** N/A
DEPTH TO SEDIMENT (ft): ∇ NM 12/30/1899 2:25 pm
GENERAL NOTES: Density = 80.2 lbs/ft³


ABBREVIATIONS:
ID = Inside Diameter
OD = Outside Diameter
Pen. = Penetration Length
Rec. = Recovery Length
U = Undisturbed Tube Sample
C = Rock Core
S = Split Spoon
DP = Direct Push Sample
WOH = Weight of Hammer
OVM = Organic Vapor Meter
PLO = Petroleum Like Odor
NLO = Naphthalene Like Odor
NA, NM = Not Applicable, Not Measured
H2S = Hydrogen Sulfide Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|----------------|------|-----------------------|-----------------------------|-----------------------|-------------|--|---------|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 3.2 | | 3.2 / 3.2 | 100. | NM | | 0.0-1.0': SILT WITH SAND (ML); ~80% fines, ~15% fine to coarse sand, <5% gravel, loose, shell fragments, live clam, black-brown. | |
| | 2 | S2 | | | | | NM | | 1.0-2.6': WIDELY GRADED GRAVEL (GW); ~95% gravel, ~5% fine to coarse sand, tar stringers present 2.5-2.6', NLO, black-brown. | |
| | | S3 | | | | | NM | | 2.6-3.2': SILT WITH SAND (ML); 85% fines, ~15% fine to coarse sand, tar blebs, sheen, NLO, black. | |
| | 4 | | | | | | | | End of Boring at 3.2 feet | |
| | 6 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |

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|---|--|
| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248356.71</u> NORTHING: <u>820259.57</u> LOCATION: <u>Outer Slip</u> | BORING T25-6 PAGE 1 of 1 |
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|--|--|---------------------------------|--|
| Drilling Information | | | |
| DATE START / END: <u>4/22/2010 - 4/22/2010</u> | | TOTAL DEPTH (FT): <u>8.0</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> DRILLER: <u>E. Perrone</u> | | LOGGED BY: <u>B. Carlson</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | BORING METHOD: <u>Vibracore</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> CASING ID/OD: <u>3.5 in / 3.5 in</u> | | | |
| HAMMER TYPE: <u>N/A</u> HAMMER WEIGHT (lbs): <u>N/A</u> | | HAMMER DROP (Inch): <u>N/A</u> | |
| DEPTH TO SEDIMENT (ft): <u>11.5</u> 12/30/1899 2:45 pm | | | |
| GENERAL NOTES: <u>Density = 99.3 lbs/ft³</u> | | | |

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|--|-----------------------|-----------------------------|---------------------------|---|---|---------|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 8 |  | 8.0 / 5.2 | 65. | S1 and S2: 15.2 ppm | 0.0-1.2': SILTY SAND (SM); ~60% fine to coarse sand, ~40% fines, loose, shells, wood fragments, live clam, black. | Collected composite sample from 0-4.3'. | |
| | 2 | S2 | | | | | | 1.2-2.3': SILTY SAND (SM); ~75% fine to coarse sand, ~20% fines, ~5% gravel less than 0.25", trace shells, trace wood, black. | | |
| | 4 | S3 | | | | | 66.2 ppm | 2.3-4.3': SILT (ML); ~95% fines, ~5% fine sand, trace shells, trace reeds, wood, slight staining, black. | | |
| | 6 | S4 | | | | | 20.5 ppm | 4.3-8.0': SILT (ML); ~95% fines, ~5% fine sand, trace shells, trace reeds, wood, grey-brown. | | |
| | 8 | | | | | | | End of Boring at 8 feet | Refusal at 8'. Sheen observed on core barrel. Silt observed in tip of core barrel. | |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |

| | | |
|---|---|--|
| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
|---|---|--|

sediment 01 100920 NSTAR.GPJ GEI DATA TEMPLATE.GDT 5/25/10


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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: NSTAR |  GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
| | PROJECT NAME: NSTAR New Bedford Service Center | |
| | CITY/STATE: New Bedford, MA | |
| | GEI PROJECT NUMBER: 10092-0 | |

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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248365.09</u> NORTHING: <u>820271.73</u> LOCATION: <u>Outer Slip</u> | BORING T50-4A PAGE 1 of 1 |
|---|---|

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|---|--|
| Drilling Information DATE START / END: <u>4/22/2010 - 4/22/2010</u> TOTAL DEPTH (FT): <u>8.0</u> CONTRACTOR: <u>CR Environmental, Inc.</u> DRILLER: <u>E. Perrone</u> LOGGED BY: <u>B. Carlson</u> EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> BORING METHOD: <u>Vibracore</u> AUGER ID/OD: <u>N/A / N/A</u> CASING ID/OD: <u>3.5 in / 3.5 in</u> HAMMER TYPE: <u>N/A</u> HAMMER WEIGHT (lbs): <u>N/A</u> HAMMER DROP (Inch): <u>N/A</u> DEPTH TO SEDIMENT (ft): <u>14.7</u> 12/30/1899 10:14 am GENERAL NOTES: <u>Density = 89.8 lbs/ft³</u> | |
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ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|------|-----------------------|-----------------------------|--|---|--|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | | | |
| | | S1 | 0 to 8 | | 8.0 / 6.5 | 81.3 | NM | 0.0-0.7': SHELL FRAGMENTS WITH SAND AND SILT; ~80% shell fragments, ~10% fine to coarse sand, ~10% fines, live clam, slight NLO, black. | Collected composite sample from 0-5.8'. |
| | | S2 | | | | | | | |
| 2 | | | | | | | | | |
| 4 | | | | | | | | | |
| 6 | | S3 S4 | | | | NM NM | 5.7-5.8': NARROWLY GRADED SAND (SP); 100% coarse sand, orange. 5.8-6.9': SILT WITH SAND (ML); ~60% fines, ~40% fine sand, reeds, shells, olive-brown. | | |
| | | S5 | | | | NM | 6.9-8.0': SILTY SAND (SM); ~60% fine to coarse sand, ~30% fines, ~10% fine to coarse gravel less than 1", olive-brown. | | |
| 8 | | | | | | | | End of Boring at 8 feet | Refusal at 8'. Coal tar observed on outside of core barrel. Sand observed in tip of core barrel. |
| 10 | | | | | | | | | |
| 12 | | | | | | | | | |
| 14 | | | | | | | | | |

| | | |
|---|---|---|
| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> |  GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
|---|---|---|

sediment 01 100920 NSTAR.GPJ GEI DATA TEMPLATE GDT 5/25/10

Boring Location

HORIZONTAL DATUM: NAD83 MA Mainland Zone GROUND SURFACE ELEVATION (FT): _____
EASTING: 248360.96 NORTHING: 820272.61
LOCATION: Outer Slip

BORING

T-50-4A-GT

PAGE 1 of 1

Drilling Information

DATE START / END: 4/23/2010 - 4/23/2010 TOTAL DEPTH (FT): 7.0
CONTRACTOR: CR Environmental, Inc. DRILLER: E. Perrone LOGGED BY: M. Sabulis
EQUIPMENT: Lophius: 26-foot aluminium research vessel BORING METHOD: Vibracore
AUGER ID/OD: N/A / N/A CASING ID/OD: 2.5 in / 2.625 in
HAMMER TYPE: N/A HAMMER WEIGHT (lbs): N/A HAMMER DROP (Inch): N/A
DEPTH TO SEDIMENT (ft): 13.1 12/30/1899 12:58 pm

GENERAL NOTES:

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|------|-----------------------|-----------------------------|-----------------------|-------------|---|--|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 7 | | 7.0 / 5.0 | 71.4 | NM | | Not classified. | |
| 2 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 6 | | | | | | | | | | Collected core sample T50-4A-GT (6-7'). |
| 8 | | | | | | | | | End of Boring at 7 feet | Sheen and NLO noted on core. |
| 10 | | | | | | | | | | |
| 12 | | | | | | | | | | |
| 14 | | | | | | | | | | |

Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times.

CLIENT: NSTAR
PROJECT NAME: NSTAR New Bedford Service Center
CITY/STATE: New Bedford, MA
GEI PROJECT NUMBER: 10092-0

GEI Consultants
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
781-721-4000

sediment 01 100920 NSTAR.GPJ GEI DATA TEMPLATE.GDT 5/25/10

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|---|--|
| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248363.60</u> NORTHING: <u>820272.28</u> LOCATION: <u>Outer Slip</u> | BORING <div style="font-size: 1.5em; font-weight: bold; margin: 10px 0;">T-50-4-GT</div> PAGE 1 of 1 |
|---|--|

| | | | |
|--|--|--|--|
| Drilling Information DATE START / END: <u>4/23/2010 - 4/23/2010</u> TOTAL DEPTH (FT): <u>6.0</u> CONTRACTOR: <u>CR Environmental, Inc.</u> DRILLER: <u>E. Perrone</u> LOGGED BY: <u>M. Sabulis</u> EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> BORING METHOD: <u>Vibracore</u> AUGER ID/OD: <u>N/A / N/A</u> CASING ID/OD: <u>2.5 in / 2.625 in</u> HAMMER TYPE: <u>N/A</u> HAMMER WEIGHT (lbs): <u>N/A</u> HAMMER DROP (inch): <u>N/A</u> DEPTH TO SEDIMENT (ft): <u>13.1</u> 12/30/1899 12:15 pm | | | |
| GENERAL NOTES: | | | |

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|------|-----------------------|-----------------------------|-----------------------|-------------|---|--|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 6 | | 6.0 / 5.0 | 83.3 | NM | | Not classified. | Collected core sample T50-4-GT (0-1'). |
| | 2 | | | | | | | | | Collected core sample T50-4-GT (2-3'). |
| | 4 | | | | | | | | | Collected core sample T50-4-GT (5-6'). |
| | 6 | | | | | | | | End of Boring at 6 feet | Silt, sand, and gravel observed in tip. NLO and sheen observed in tip. |
| | 8 | | | | | | | | | |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |

| | | |
|---|---|--|
| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | <div style="text-align: center;"> GEI Consultants </div> <div style="text-align: right; margin-top: 10px;"> GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 </div> |
|---|---|--|

sediment 01 100920 NSTAR GPJ GEI DATA TEMPLATE GDT 5/25/10

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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248360.39</u> NORTHING: <u>820265.50</u> LOCATION: <u>Outer Slip</u> | BORING T50-5 PAGE 1 of 1 |
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| Drilling Information | | | |
| DATE START / END: <u>4/22/2010 - 4/22/2010</u> | | TOTAL DEPTH (FT): <u>7.8</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> | | DRILLER: <u>E. Perrone</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | LOGGED BY: <u>B. Carlson</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> | | CASING ID/OD: <u>3.5 in / 3.5 in</u> | |
| HAMMER TYPE: <u>N/A</u> | | HAMMER WEIGHT (lbs): <u>N/A</u> | |
| DEPTH TO SEDIMENT (ft): <u>10.8</u> 12/30/1899 10:39 am | | HAMMER DROP (inch): <u>N/A</u> | |
| GENERAL NOTES: <u>Density = 105.9 lbs/ft³</u> | | | |

ABBREVIATIONS:

| | | | |
|---------------------------|---------------------------|-----------------------------|---------------------------------------|
| ID = Inside Diameter | U = Undrilled Tube Sample | WOH = Weight of Hammer | NA, NM = Not Applicable, Not Measured |
| OD = Outside Diameter | C = Rock Core | OVM = Organic Vapor Meter | H2S = Hydrogen Sulfide Like Odor |
| Pen. = Penetration Length | S = Split Spoon | PLO = Petroleum Like Odor | |
| Rec. = Recovery Length | DP = Direct Push Sample | NLO = Naphthalene Like Odor | |

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|----------------|------|-----------------------|-----------------------------|---|-------------|---|---|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 7.8 | | 7.8 / 6.5 | 83.3 | NM | | 0.0-2.2': SILT WITH SAND (ML); ~55% fines, ~45% fine to coarse sand, shells, reeds, NLO, H2S odor, black. | Collected composite sample from 0-5.5'. |
| | 2 | S2 | | | NM | | 2.2-4.8': SILT (ML); ~95% fines, ~5% fine to coarse sand, shells, reeds, NLO, sheen, stained black. | | | |
| | 4 | S3 | | | NM | | 4.8-5.5': SILT (ML); ~95% fines, ~5% fine to coarse sand, slight NLO, brown-black. | | | |
| | 6 | S4 | | | NM | | 5.5-6.6': NARROWLY GRADED SAND (SP); ~95% fine sand, ~5% fines, grey. | | | |
| | | S5 | | | NM | | 6.6-7.8': WIDELY GRADED SAND (SW); ~100% fine to coarse sand, orange-brown. | | | |
| | 8 | | | | | | | | End of Boring at 7.8 feet | Refusal at 7.8'. Sheen observed on outside of core barrel. Sand observed in tip of core barrel. |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |





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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
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sediment 01 100920 NSTAR.GPJ GEI DATA TEMPLATE.GDT 5/25/10

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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248365.98</u> NORTHING: <u>820288.16</u> LOCATION: <u>Outer Slip</u> | BORING T75-1 PAGE 1 of 1 |
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| Drilling Information | | | |
| DATE START / END: <u>4/22/2010 - 4/22/2010</u> | | TOTAL DEPTH (FT): <u>4.0</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> DRILLER: <u>E. Perrone</u> | | LOGGED BY: <u>B. Carlson</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | BORING METHOD: <u>Vibracore</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> CASING ID/OD: <u>3.5 in / 3.5 in</u> | | | |
| HAMMER TYPE: <u>N/A</u> HAMMER WEIGHT (lbs): <u>N/A</u> | | HAMMER DROP (Inch): <u>N/A</u> | |
| DEPTH TO SEDIMENT (ft): <u>20.5</u> 12/30/1899 3:19 pm | | | |
| GENERAL NOTES: <u>Density = 89.8 lbs/ft³</u> | | | |

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|--|-----------------------|--|---|---|---|--|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 4 |  | 4.0 / 2.5 | 62.5 | NM |  | 0.0-1.0': SILTY SAND (SM); ~40% fine to coarse sand, ~35% fines, ~25% crushed shells, wood fragments, loose, black-brown. | Collected composite sample from 0-4'. |
| | 2 | S2 | | | NM |  | 1.0-2.9': SILTY SAND (SM); ~85% fine to coarse sand, ~15% fines, trace reeds, trace shell fragments, one cobble ~0.3' long, 1" silty lens at 2.6', black-brown. | | | |
| | 4 | S3 | | | NM |  | 2.9-4.0': SILT (ML); ~95% fines, <5% fine sand, tar, tar veins, NLO, black-brown. | | | |
| | | | | | | | | | End of Boring at 4 feet | Refusal at 4.0'. Gravel, sheen, and blebs observed in tip of core barrel. Sheen observed on water in core. |
| | 6 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
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sediment 01 100920 NSTAR GPJ GEI DATA TEMPLATE GDT 5/25/10

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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248369.66</u> NORTHING: <u>820279.03</u> LOCATION: <u>Outer Slip</u> | BORING T75-3 PAGE 1 of 1 |
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| Drilling Information | | | |
| DATE START / END: <u>4/22/2010 - 4/22/2010</u> | | TOTAL DEPTH (FT): <u>5.0</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> | | DRILLER: <u>E. Perrone</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | LOGGED BY: <u>B. Carlson</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> | | BORING METHOD: <u>Vibracore</u> | |
| CASING ID/OD: <u>3.5 in / 3.5 in</u> | | | |
| HAMMER TYPE: <u>N/A</u> | | HAMMER WEIGHT (lbs): <u>N/A</u> | |
| HAMMER DROP (inch): <u>N/A</u> | | | |
| DEPTH TO SEDIMENT (ft): <u>▽ 15.7 12/30/1899 10:27 am</u> | | | |
| GENERAL NOTES: <u>Density = 98.6 lbs/ft³</u> | | | |

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|--|-----------------------|-----------------------------|-----------------------|---|---|---|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 5 |  | 5.0 / 4.1 | 82. | NM |  | 0.0-1.7': SHELLS WITH SAND AND SILT: ~80% shell fragments, ~10% fine to coarse sand, ~10% fines, reeds, black. | Collected composite sample from 0-5.0'. |
| | 2 | S2 | | | | | NM |  | 1.7-4.6': SILT (ML); ~95% fines, ~5% fine to coarse sand, shells, reeds, stained sleeve, sheen, NLO, black. | |
| | 4 | S3 | | | | | NM |  | 4.6-5.0': WIDELY GRADED GRAVEL (GW); ~90% fine to coarse gravel mostly < 1/2", 10% fine to coarse sand, NLO, tar staining, black. | |
| | 6 | | | | | | | End of Boring at 5 feet | Refusal at 5.0'. Gravel and sand observed in tip of core barrel. Sheen observed on water in core. | |
| | 8 | | | | | | | | | |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |


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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants |
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 Woburn, MA 01801
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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248365.27</u> NORTHING: <u>820261.37</u> LOCATION: <u>Outer Slip</u> | BORING T75-6 PAGE 1 of 1 |
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| Drilling Information | | | |
| DATE START / END: <u>4/22/2010 - 4/22/2010</u> | | TOTAL DEPTH (FT): <u>3.0</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> | | DRILLER: <u>E. Perrone</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | LOGGED BY: <u>B. Carlson</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> | | CASING ID/OD: <u>3.5 in / 3.5 in</u> | |
| HAMMER TYPE: <u>N/A</u> | | HAMMER WEIGHT (lbs): <u>N/A</u> | |
| DEPTH TO SEDIMENT (ft): <u>▽ 14.7</u> 12/30/1899 3:53 pm | | BORING METHOD: <u>Vibracore</u> | |
| GENERAL NOTES: <u>Density = 94.8 lbs/ft³</u> | | | |

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|---|-----------------------|-----------------------------|---------------------------|---|---|---------|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 3 |  | 3.0 / 3.0 | 100. | S1 and S2: 13.6 ppm | 0.0-0.8': SILT WITH SAND (ML); ~85% fines, ~15% fine sand, shells, loose, dark brown. | | |
| | | S2 | | | | | | 0.8-1.9': SILT (ML); ~90% fines, ~10% fine sand, trace shells, olive-brown. | | |
| | 2 | S3 | | | | | S3 and S4: 20.5 ppm | 1.9-2.4': SILT WITH SAND (ML); ~80% fines, ~20% fine to coarse sand, shell fragments, brown-black. | | |
| | | S4 | | | | | | 2.4-3.0': SILT (ML); ~90% fines, ~10% fine sand, trace shells, olive-brown. | | |
| | 4 | | | | | | | End of Boring at 3 feet | Refusal at 3.0'. Silt observed in tip of core barrel. Sheen observed on water in core. | |
| | 6 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |


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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
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sediment 01 100920 NSTAR.GPJ GEI DATA TEMPLATE GDT 5/25/10

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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248373.81</u> NORTHING: <u>820254.27</u> LOCATION: <u>Outer Slip</u> | BORING T75-7 PAGE 1 of 1 |
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| Drilling Information | | | |
| DATE START / END: <u>4/22/2010 - 4/22/2010</u> | | TOTAL DEPTH (FT): <u>4.0</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> | | DRILLER: <u>E. Perrone</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | LOGGED BY: <u>B. Carlson</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> | | CASING ID/OD: <u>3.5 in / 3.5 in</u> | |
| HAMMER TYPE: <u>N/A</u> | | HAMMER WEIGHT (lbs): <u>N/A</u> | |
| DEPTH TO SEDIMENT (ft): <u>17.4</u> 12/30/1899 2:23 pm | | HAMMER DROP (Inch): <u>N/A</u> | |
| GENERAL NOTES: <u>Density = 107.3 lbs/ft³</u> | | | |

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|--|-----------------------|-----------------------------|--------------------------|-------------|---|--|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 4 |  | 4.0 / 3.0 | 75. | 2.5 ppm | | 0.0-2.5': SILT (ML); ~90% fines, ~10% fine sand, shells near top, very loose, one live red flatworm, black. | |
| 2 | | S2 | | | | | 1.1 ppm | | 2.5-2.8': SANDY SILT (ML); ~70% fines, ~20% fine to coarse sand, ~10% gravel <1/2", loose, black. | |
| | | S3 | | | | | | | 2.8-3.3': SANDY SILT (ML); ~65% fines, ~35% fine sand, loose, grey-brown. | |
| | | S4 | | | | | S3 and S4: 3.4 ppm | | 3.3-4.0': WIDELY GRADED SAND WITH SILT (SW-SM); ~90% fine to coarse sand, ~10% fines, tan-grey. | |
| | 4 | | | | | | | | End of Boring at 4 feet | Refusal at 4.0'. Sand and gravel observed in tip of core barrel. |
| | 6 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |

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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants |
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sediment 01 100920 NSTAR.GPJ GEI DATA TEMPLATE.GDT 5/25/10

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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248376.63</u> NORTHING: <u>820287.20</u> LOCATION: <u>Outer Slip</u> | BORING T100-2 PAGE 1 of 1 |
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| Drilling Information DATE START / END: <u>4/22/2010 - 4/22/2010</u> TOTAL DEPTH (FT): <u>2.0</u> CONTRACTOR: <u>CR Environmental, Inc.</u> DRILLER: <u>E. Perrone</u> LOGGED BY: <u>B. Carlson</u> EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> BORING METHOD: <u>Vibracore</u> AUGER ID/OD: <u>N/A / N/A</u> CASING ID/OD: <u>3.5 in / 3.5 in</u> HAMMER TYPE: <u>N/A</u> HAMMER WEIGHT (lbs): <u>N/A</u> HAMMER DROP (inch): <u>N/A</u> DEPTH TO SEDIMENT (ft): <u>16.5</u> 12/30/1899 10:44 am GENERAL NOTES: <u>Density = 89.8 lbs/ft³</u> | | | |
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ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|---|-----------------------|-----------------------------|-----------------------|---|--|--|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 2 |  | 2.0 / 2.0 | 100. | 1.0 ppm |  | 0.0-0.7': SILT WITH SAND (ML); ~85% fines, ~15% fine to coarse sand, loose, wood, shells, black. | |
| | | S2 | | | | | 13.7 ppm | | 0.7-2.0': SHELLS WITH SAND AND SILT; ~50% crushed shells, ~25% fine to coarse sand, ~25% fines, black. | |
| | 2 | | | | | | | | End of Boring at 2 feet | Refusal at 2.0'. Sand, gravel, and shells with slight PLO observed in tip of core barrel. Sheen observed on water in core. |
| | 4 | | | | | | | | | |
| | 6 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |

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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
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sediment 01 100920 NSTAR.GPJ GEI DATA TEMPLATE.GDT 5/25/10

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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248369.05</u> NORTHING: <u>820278.68</u> LOCATION: <u>Outer Slip</u> | BORING T100-3 PAGE 1 of 1 |
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| Drilling Information | | | |
| DATE START / END: <u>4/22/2010 - 4/22/2010</u> | | TOTAL DEPTH (FT): <u>4.9</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> DRILLER: <u>E. Perrone</u> | | LOGGED BY: <u>B. Carlson</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | BORING METHOD: <u>Vibracore</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> | CASING ID/OD: <u>3.5 in / 3.5 in</u> | | |
| HAMMER TYPE: <u>N/A</u> | HAMMER WEIGHT (lbs): <u>N/A</u> | HAMMER DROP (inch): <u>N/A</u> | |
| DEPTH TO SEDIMENT (ft): <u>15.7</u> 12/30/1899 10:59 am | | | |
| GENERAL NOTES: | | | |

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|----------------|--------------------|---------------|------|-----------------------|-----------------------------|-----------------------|-------------|---|---|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | 0 to 4.9 | | | | 4.9 / 0.8 | 16.3 | NM | | Did not classify. | |
| | 2 | | | | | | | | | |
| | 4 | | | | | | | | | |
| | 6 | | | | | | | | End of Boring at 4.9 feet | Refusal at 4.9'. Sheen observed on core barrel. Coal tar observed in core. Strong NLO. |
| | 8 | | | | | | | | | |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |





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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248377.33</u> NORTHING: <u>820283.66</u> LOCATION: <u>Outer Slip</u> | BORING T100-3A PAGE 1 of 1 |
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| Drilling Information | | | |
| DATE START / END: <u>4/22/2010 - 4/22/2010</u> | | TOTAL DEPTH (FT): <u>4.5</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> | | DRILLER: <u>E. Perrone</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | LOGGED BY: <u>B. Carlson</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> | | BORING METHOD: <u>Vibracore</u> | |
| CASING ID/OD: <u>3.5 in / 3.5 in</u> | | | |
| HAMMER TYPE: <u>N/A</u> | | HAMMER WEIGHT (lbs): <u>N/A</u> | |
| HAMMER DROP (Inch): <u>N/A</u> | | | |
| DEPTH TO SEDIMENT (ft): <u>16.3</u> 12/30/1899 11:11 am | | | |
| GENERAL NOTES: <u>Density = 122.7 lbs/ft³</u> | | | |

ABBREVIATIONS:

| | | | |
|---------------------------|-----------------------------|-----------------------------|---------------------------------------|
| ID = Inside Diameter | U = Undisturbed Tube Sample | WOH = Weight of Hammer | NA, NM = Not Applicable, Not Measured |
| OD = Outside Diameter | C = Rock Core | OVM = Organic Vapor Meter | H2S = Hydrogen Sulfide Like Odor |
| Pen. = Penetration Length | S = Split Spoon | PLO = Petroleum Like Odor | |
| Rec. = Recovery Length | DP = Direct Push Sample | NLO = Naphthalene Like Odor | |

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|----------------|--|-----------------------|-----------------------------|-----------------------|--|---|---|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 4.5 |  | 4.5 / 2.5 | 55.6 | NM |  | 0.0-2.3': SHELLS WITH SAND; ~85% crushed shells, ~15% fine to coarse, sand, bricks, reeds, slight NLO, black. | Collected composite sample from 0-3.6'. |
| | 2 | S2 | | | | | NM |  | 2.3-3.6': SILTY SAND WITH GRAVEL (SM); ~40% fines, ~35% fine to coarse sand, ~25% fine gravel mostly <1/8" but up to 1", shell fragments, NLO, black. | |
| | 4 | S3 | | | | | NM |  | 3.6-4.5': WIDELY GRADED GRAVEL (GW); ~90% gravel mostly <1/4" but up to 1", ~5% coarse sand, ~5% fines, loose, brown. | |
| | | | | | | | | End of Boring at 4.5 feet | Refusal at 4.5'. Slight NLO noted on gravel in tip of core barrel. | |
| | 6 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |





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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
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sediment 01 100920 NSTAR.GPJ GEI DATA TEMPLATE.GDT 5/25/10

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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248376.86</u> NORTHING: <u>820275.97</u> LOCATION: <u>Outer Slip</u> | BORING T100-4 PAGE 1 of 1 |
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| Drilling Information | | | |
| DATE START / END: <u>4/22/2010 - 4/22/2010</u> | | TOTAL DEPTH (FT): <u>7.5</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> DRILLER: <u>E. Perrone</u> | | LOGGED BY: <u>B. Carlson</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | BORING METHOD: <u>Vibracore</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> | CASING ID/OD: <u>3.5 in / 3.5 in</u> | | |
| HAMMER TYPE: <u>N/A</u> | HAMMER WEIGHT (lbs): <u>N/A</u> | HAMMER DROP (Inch): <u>N/A</u> | |
| DEPTH TO SEDIMENT (ft): <u>15.2</u> 12/30/1899 11:54 am | | | |
| GENERAL NOTES: <u>Density = 105.1 lbs/ft³</u> | | | |

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|----------------|------|-----------------------|-----------------------------|-----------------------|---|---|--|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 7.5 | | 7.5 / 4.2 | 56. | NM |  | 0.0-2.9': SHELLS WITH SAND AND SILT; ~90% shells, ~5% fine to coarse sand, ~5% fines, brick fragments, sheen, black. | Collected composite sample from 0-3.9'. |
| | 2 | S2 | | | | | NM |  | 2.9-3.9': SILT (ML); ~90% fines, ~10% fine to coarse sand, reeds, NLO, brown-black. | |
| | 4 | S3 | | | | | NM |  | 3.9-5.9': WIDELY GRADED GRAVEL (GW); ~90% gravel mostly <1/4" but up to 0.2', ~5% fine to coarse sand, ~5% fines, orange-brown. | |
| | 6 | S4 | | | | | NM |  | 5.9-7.5': WIDELY GRADED SAND (SW); ~90% fine to coarse sand, ~10% fine gravel less than 1/4", NLO, sheen, black. | |
| | 8 | | | | | | | | End of Boring at 7.5 feet | Refusal at 7.5'. Coal tar observed on cobbles in tip of core barrel. |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |

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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants |
|---|---|----------------------------|

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 400 Unicorn Park Drive
 Woburn, MA 01801
 781-721-4000

| | |
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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248377.83</u> NORTHING: <u>820270.63</u> LOCATION: <u>Outer Slip</u> | BORING T100-5 PAGE 1 of 1 |
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| Drilling Information | | | |
| DATE START / END: <u>4/23/2010 - 4/23/2010</u> | | TOTAL DEPTH (FT): <u>3.0</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> | | DRILLER: <u>E. Perrone</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | LOGGED BY: <u>B. Carlson</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> | | CASING ID/OD: <u>3.5 in / 3.5 in</u> | |
| HAMMER TYPE: <u>N/A</u> | | HAMMER WEIGHT (lbs): <u>N/A</u> | |
| DEPTH TO SEDIMENT (ft): <u>▽ 13.7 12/30/1899 9:31 am</u> | | HAMMER DROP (inch): <u>N/A</u> | |
| GENERAL NOTES: <u>Density = 97.3 lbs/ft³</u> | | | |

ABBREVIATIONS:

| | | | |
|---------------------------|-----------------------------|-----------------------------|---------------------------------------|
| ID = Inside Diameter | U = Undisturbed Tube Sample | WOH = Weight of Hammer | NA, NM = Not Applicable, Not Measured |
| OD = Outside Diameter | C = Rock Core | OVM = Organic Vapor Meter | H2S = Hydrogen Sulfide Like Odor |
| Pen. = Penetration Length | S = Split Spoon | PLO = Petroleum Like Odor | |
| Rec. = Recovery Length | DP = Direct Push Sample | NLO = Naphthalene Like Odor | |

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|------------|------------|--------------------|------------|------|-----------------|-----------------------|-----------------|-------------|---|--|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 3 | | 3.0 / 2.0 | 66.7 | 0.7 ppm | | 0.0-0.9': SILT WITH SAND (ML); ~85% fines, ~15% fine to coarse sand, shells, loose, black. | |
| | | S2 | | | | | 2.5 ppm | | 0.9-3.0': SHELLS WITH SAND AND SILT; ~65% crushed shells, ~30% fine to coarse sand, <5% fines, black. | |
| | 2 | | | | | | | | | |
| | 4 | | | | | | | | End of Boring at 3 feet | Refusal at 3.0'. Slight sheen observed on water in core, but sheen does not appear to be associated with collected sediment. |
| | 6 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |

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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
|---|---|--|

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400 Unicorn Park Drive
Woburn, MA 01801
781-721-4000

Boring Location

HORIZONTAL DATUM: NAD83 MA Mainland Zone GROUND SURFACE ELEVATION (FT): _____
EASTING: 248384.96 NORTHING: 820280.30
LOCATION: Outer Slip

BORING**T125-3**

PAGE 1 of 1

Drilling Information

DATE START / END: 4/22/2010 - 4/22/2010 TOTAL DEPTH (FT): 7.0
CONTRACTOR: CR Environmental, Inc. DRILLER: E. Perrone LOGGED BY: B. Carlson
EQUIPMENT: Lophius: 26-foot aluminium research vessel BORING METHOD: Vibracore
AUGER ID/OD: N/A / N/A CASING ID/OD: 3.5 in / 3.5 in
HAMMER TYPE: N/A HAMMER WEIGHT (lbs): N/A HAMMER DROP (Inch): N/A
DEPTH TO SEDIMENT (ft): ▽ 15.5 12/30/1899 11:34 am
GENERAL NOTES: Density = 102.9 lbs/ft³

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|------|-----------------------|-----------------------------|-----------------------|-------------|--|---|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 7 | | 7.0 / 4.0 | 57.1 | NM | | 0.0-2.3': SHELLS WITH SAND AND SILT; ~90% shells, ~5 % fine to coarse sand, ~5% fines, bricks, loose, NLO, sheen, black. | Collected composite sample from 0-7.0'. |
| | 2 | S2 | | | | | NM | | 2.3-2.7': SILT WITH SAND (ML), ~55% fines, ~45% fine to coarse sand, shells, loose, sheen, NLO, brown-black. | |
| | | S3 | | | | | NM | | 2.7-3.6': SHELLS WITH SAND AND SILT; ~90% shells, ~5 % fine to coarse sand, ~5% fines, bricks, loose, NLO, sheen, black. | |
| | 4 | S4 | | | | | NM | | 3.6-5.7': SILT (ML); ~90% fines, ~10% fine to coarse sand, reeds, sheen, NLO, brown-black. | |
| | 6 | S5 | | | | | NM | | 5.7-6.2': WIDELY GRADED SAND (SW); ~95% fine to coarse sand, ~5% fines, sheen, NLO, brown-black. | |
| | | S6 | | | | | NM | | 6.2-7.0': WIDELY GRADED SAND (SW); similar to 5.7-6.2', but sediment and sleeve stained black. | Refusal at 7.0'. Sand and gravel and coal tar observed in tip of core barrel. |
| | 8 | | | | | | | | End of Boring at 7 feet | |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |

Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times.


CLIENT: NSTAR
PROJECT NAME: NSTAR New Bedford Service Center
CITY/STATE: New Bedford, MA
GEI PROJECT NUMBER: 10092-0

 **GEI** Consultants
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
781-721-4000

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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248386.67</u> NORTHING: <u>820269.88</u> LOCATION: <u>Outer Slip</u> | BORING T125-5 PAGE 1 of 1 |
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| Drilling Information | | | |
| DATE START / END: <u>4/22/2010 - 4/22/2010</u> | | TOTAL DEPTH (FT): <u>5.0</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> | | DRILLER: <u>E. Perrone</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | LOGGED BY: <u>B. Carlson</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> | | CASING ID/OD: <u>3.5 in / 3.5 in</u> | |
| HAMMER TYPE: <u>N/A</u> | | HAMMER WEIGHT (lbs): <u>N/A</u> | |
| DEPTH TO SEDIMENT (ft): <u>▽ 17.9 12/30/1899 1:55 pm</u> | | HAMMER DROP (inch): <u>N/A</u> | |
| GENERAL NOTES: <u>Density = 127.9 lbs/ft³</u> | | | |

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|--|-----------------------|-----------------------------|------------------------|---|--|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | | | |
| | | S1 | 0 to 5 |  | 5.0 / 3.1 | 62. | S1 and S2: 5 ppm | 0.0-1.3': SHELLS WITH SAND; ~90% shells, ~10 % fine to coarse sand, H2S odor, black. | Collected composite sample from 0-4.0'. |
| | | S2 | | | | | | | |
| | | S3 | | | | | | | |
| | 2 | S4 | | | | | | | |
| | | S5 | | | | | | | |
| | | S6 | | | | | | | |
| | | S7 | | | | | | | |
| | | | | | | | 197 ppm | 2.7-2.8': SILT (ML); ~90% fines, ~10% fine to coarse sand, loose, slight NLO, brown-black. | |
| | | | | | | | | 2.8-3.5': SHELLS WITH SAND; ~80% shells, ~20 % fine to coarse sand, black. | |
| | 4 | | | | | | | 3.5-4.6': WIDELY GRADED SAND (SW); ~100% fine to coarse sand, slight NLO, small stringers of tar, tan-brown. | |
| | | | | | | | | 4.6-5.0': WIDELY GRADED SAND (SW); ~100% fine to coarse sand, NLO, sheen, free product, tan-brown where there is no tar but mostly stained dark brown. | |
| | 6 | | | | | | | | Refusal at 5.0'. Sand and gravel and coal tar blebs observed in tip of core barrel. |
| | | | | | | | | End of Boring at 5 feet | |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | |
| | 12 | | | | | | | | |
| | 14 | | | | | | | | |

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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248393.53</u> NORTHING: <u>820282.72</u> LOCATION: <u>Outer Slip</u> | BORING T150-2 PAGE 1 of 1 |
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| Drilling Information DATE START / END: <u>4/23/2010 - 4/23/2010</u> TOTAL DEPTH (FT): <u>2.0</u> CONTRACTOR: <u>CR Environmental, Inc.</u> DRILLER: <u>E. Perrone</u> LOGGED BY: <u>B. Carlson</u> EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> BORING METHOD: <u>Vibracore</u> AUGER ID/OD: <u>N/A / N/A</u> CASING ID/OD: <u>3.5 in / 3.5 in</u> HAMMER TYPE: <u>N/A</u> HAMMER WEIGHT (lbs): <u>N/A</u> HAMMER DROP (inch): <u>N/A</u> DEPTH TO SEDIMENT (ft): <u>15.6</u> 12/30/1899 9:01 am GENERAL NOTES: <u>Density = 119.7 lbs/ft³</u> | | | |
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ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor




| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks | |
|---------------|---------------|--------------------|---------------|------|-----------------------|-----------------------------|--------------------------------|---|---|---|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | | | | Field Test Data |
| | | S1 | 0 to 2 | | 2.0 / 2.0 | 100. | 1.8 ppm | | 0.0-0.5': NARROWLY GRADED GRAVEL WITH SAND (GP); ~65% fine gravel < 1-4", ~35% fine to coarse sand, shells, black. 0.5-0.7': NARROWLY GRADED GRAVEL WITH SAND (GP); similar to 0.0-0.5', but with taffy-like tar and NLO. 0.7-1.0': NARROWLY GRADED GRAVEL WITH SAND (GP); similar to 0.0-0.5'. 1.0-2.0': WIDELY GRADED SAND (SW); ~100% fine to coarse sand, brown. | Collected composite sample from 0-1'. Very slight sheen on water after we isolated the tar and exposed it to surface water. Refusal at 2.0'. |
| | 2 | S2 S3 S4 | | | | | S2 and S3: 66.3 ppm 0.3 ppm | | | |
| | 4 | | | | | | | | | |
| | 6 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |

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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants | GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248393.38</u> NORTHING: <u>820283.04</u> LOCATION: <u>Outer Slip</u> | BORING T150-3 PAGE 1 of 1 |
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| Drilling Information | | | |
| DATE START / END: <u>4/22/2010 - 4/22/2010</u> | | TOTAL DEPTH (FT): <u>8.0</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> | | DRILLER: <u>E. Perrone</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | LOGGED BY: <u>B. Carlson</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> | | BORING METHOD: <u>Vibracore</u> | |
| CASING ID/OD: <u>3.5 in / 3.5 in</u> | | | |
| HAMMER TYPE: <u>N/A</u> | | HAMMER WEIGHT (lbs): <u>N/A</u> | |
| HAMMER DROP (inch): <u>N/A</u> | | | |
| DEPTH TO SEDIMENT (ft): <u>18.7</u> 12/30/1899 1:41 pm | | | |
| GENERAL NOTES: <u>Density = 124.7 lbs/ft³</u> | | | |

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|------|----------------------|-----------------------------|-----------------------|---|---|---|
| | | Sample No. | Depth (ft) | Type | Pen/ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 8 | | 8.0 / 4.5 | 56.3 | NM |  | 0.0-0.9': SHELLS WITH SAND AND SILT; ~70% shells, ~20 % fine to coarse sand, ~5% fines, loose, sheen, NLO, black. | Collected composite sample from 0-6.2'. |
| | 2 | S2 | | | | | NM |  | | |
| | 4 | | | | | | | | | |
| | 6 | S3 | | | | | NM |  | 6.2-8.0': POORLY GRADED SAND (SP); 100% coarse sand, slight NLO, tan-brown. | |
| | 8 | | | | | | | | End of Boring at 8 feet | Refusal at 8.0'. Sand and gravel observed in tip of core barrel. NLO and sheen observed on core barrel. |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |


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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
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sediment 01 100920 NSTAR.GPJ GEI DATA TEMPLATE.GDT 5/25/10

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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248391.84</u> NORTHING: <u>820264.14</u> LOCATION: <u>Outer Slip</u> | BORING T150-4 PAGE 1 of 1 |
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| Drilling Information | | | |
| DATE START / END: <u>4/23/2010 - 4/23/2010</u> | | TOTAL DEPTH (FT): <u>8.0</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> DRILLER: <u>E. Perrone</u> | | LOGGED BY: <u>B. Carlson</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | BORING METHOD: <u>Vibracore</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> CASING ID/OD: <u>3.5 in / 3.5 in</u> | | | |
| HAMMER TYPE: <u>N/A</u> HAMMER WEIGHT (lbs): <u>N/A</u> | | HAMMER DROP (inch): <u>N/A</u> | |
| DEPTH TO SEDIMENT (ft): <u>19.3</u> 12/30/1899 9:17 am | | | |
| GENERAL NOTES: <u>Density = 82.9 lbs/ft³</u> | | | |

ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|------|-----------------------|-----------------------------|---------------------------|--|---|---------|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 | | 8.0 / 6.5 | 81.3 | 2.3 ppm |  | 0.0-0.4': SHELLS WITH SAND AND SILT; ~85% crushed shells, ~10% fine to coarse sand, ~5% fines, black. | |
| | | S2 | to 8 | | | | S2 and S3: 20.4 ppm | | 0.4-5.3': SILT (ML); ~95% fines, ~5% sand ranging from fine at top of strata to coarse at bottom of strata, looser at top of strata, trace shells, black. | |
| 2 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| | | S3 S4 | | | | | 57.1 ppm | | 5.3-5.5': SILT (ML); similar to 0.4-5.3', but with more shells. | |
| 6 | | | | | | | | 5.5-8.0': SILT (ML); similar to 0.4-5.3'. | | |
| 8 | | | | | | | | | | |
| | | | | | | | | End of Boring at 8 feet | Refusal at 8.0'. Sand and gravel with NLO and sheen observed in tip of core barrel. Very slight sheen observed on water in core. | |
| 10 | | | | | | | | | | |
| 12 | | | | | | | | | | |
| 14 | | | | | | | | | | |

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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
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sediment 01 100920 NSTAR.GPJ GEI DATA TEMPLATE_GDT 5/25/10

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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248394.56</u> NORTHING: <u>820265.96</u> LOCATION: <u>Outer Slip</u> | | BORING T150-6 PAGE 1 of 1 |
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| Drilling Information DATE START / END: <u>4/22/2010 - 4/22/2010</u> TOTAL DEPTH (FT): <u>6.5</u> CONTRACTOR: <u>CR Environmental, Inc.</u> DRILLER: <u>E. Perrone</u> LOGGED BY: <u>B. Carlson</u> EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> BORING METHOD: <u>Vibracore</u> AUGER ID/OD: <u>N/A / N/A</u> CASING ID/OD: <u>3.5 in / 3.5 in</u> HAMMER TYPE: <u>N/A</u> HAMMER WEIGHT (lbs): <u>N/A</u> HAMMER DROP (Inch): <u>N/A</u> DEPTH TO SEDIMENT (ft): <u>21.7</u> 12/30/1899 2:09 pm GENERAL NOTES: <u>Density = 92.7 lbs/ft³</u> | | | |
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ABBREVIATIONS: ID = Inside Diameter U = Undisturbed Tube Sample WOH = Weight of Hammer NA, NM = Not Applicable, Not Measured
 OD = Outside Diameter C = Rock Core OVM = Organic Vapor Meter H2S = Hydrogen Sulfide Like Odor
 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|----------------|------|-----------------------|-----------------------------|-------------------------------|--|---|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | | | |
| | | S1 | 0 to 6.5 | | 6.5 / 4.2 | 64.6 | S1, S2, and S3: 2.6 ppm | 0.0-0.6': WIDELY GRADED SAND WITH SILT AND SHELLS (SW-SM); ~50% fine to coarse sand, ~25% fines, ~25% shells, loose, plastic fragments, black. | |
| | | S2 | | | | | | 0.6-2.0': SILT (ML); ~90% fines, ~10% fine to coarse sand, loose, trace shells, black. | |
| | 2 | S3 | | | | | | 2.0-2.5': SHELLS WITH SAND AND SILT; ~60% crushed shells, ~30% fines, ~10% fine to coarse sand, loose, black-brown. | |
| | | S4 | | | | | S4 and S5: 9.8 ppm | 2.5-4.5': SILT (ML); ~90% fines, ~10% fine to coarse sand, loose, shell fragments, black. | |
| | 4 | S5 | | | | | | 4.5-4.8': SHELLS WITH SAND AND SILT; ~80% crushed shells, ~15% fine to coarse sand, ~5% fines, reeds, loose, black. | |
| | | S6 | | | | | 7.8 ppm | 4.8-5.9': SILT (ML); ~90% fines, ~10% fine to coarse sand, loose, black. | |
| | 6 | S7 | | | | | 14.9 ppm | 5.9-6.5': SILT (ML); ~95% fines, ~5% fine sand, loose, grey-brown. | |
| | | | | | | | | End of Boring at 6.5 feet | Refusal at 6.5'. Sand and gravel with NLO observed in tip of core barrel. |
| | 8 | | | | | | | | |
| | 10 | | | | | | | | |
| | 12 | | | | | | | | |
| | 14 | | | | | | | | |


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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: <u>NSTAR</u> PROJECT NAME: <u>NSTAR New Bedford Service Center</u> CITY/STATE: <u>New Bedford, MA</u> GEI PROJECT NUMBER: <u>10092-0</u> | GEI Consultants GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
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| Boring Location HORIZONTAL DATUM: <u>NAD83 MA Mainland Zone</u> GROUND SURFACE ELEVATION (FT): _____ EASTING: <u>248413.81</u> NORTHING: <u>820287.81</u> LOCATION: <u>Outer Slip</u> | BORING T175-3 PAGE 1 of 1 |
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|--|--------------------------------------|---------------------------------|--|
| Drilling Information | | | |
| DATE START / END: <u>4/22/2010 - 4/22/2010</u> | | TOTAL DEPTH (FT): <u>3.0</u> | |
| CONTRACTOR: <u>CR Environmental, Inc.</u> DRILLER: <u>E. Perrone</u> | | LOGGED BY: <u>B. Carlson</u> | |
| EQUIPMENT: <u>Lophius: 26-foot aluminium research vessel</u> | | BORING METHOD: <u>Vibracore</u> | |
| AUGER ID/OD: <u>N/A / N/A</u> | CASING ID/OD: <u>3.5 in / 3.5 in</u> | | |
| HAMMER TYPE: <u>N/A</u> | HAMMER WEIGHT (lbs): <u>N/A</u> | HAMMER DROP (Inch): <u>N/A</u> | |
| DEPTH TO SEDIMENT (ft): <u>18.5</u> 12/30/1899 3:37 pm | | | |
| GENERAL NOTES: <u>Density = 104.8 lbs/ft³</u> | | | |

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 Pen. = Penetration Length S = Split Spoon PLO = Petroleum Like Odor
 Rec. = Recovery Length DP = Direct Push Sample NLO = Naphthalene Like Odor

| Elev. (ft) | Depth (ft) | SAMPLE INFORMATION | | | | | | GRAPHIC LOG | Sample Description & Classification | Remarks |
|---------------|---------------|--------------------|---------------|------|-----------------------|-----------------------------|-----------------------|---|---|---|
| | | Sample No. | Depth (ft) | Type | Pen./ Rec. (ft) | Percent Recovered (%) | Field Test Data | | | |
| | | S1 | 0 to 3 | | 3.0 / 2.0 | 66.7 | 33.4 ppm | | 0.0-1.8': SILT (ML); ~90% fines, ~10% fine sand, loose, shells, brown-black. | |
| | 2 | S2 | | | | | 111 ppm |  | 1.8-3.0': SHELLS WITH SAND AND SILT AND GRAVEL; ~80% crushed shells, ~10% fine to coarse sand, ~5% fines, ~5% gravel <1", brick fragments, brown-black. | |
| | 4 | | | | | | | | End of Boring at 3 feet | Refusal at 3.0' on cobbles and gravel. NLO, tar, and sheen observed in cobbles and gravel in tip of core barrel. Very slight sheen observed on water on core. |
| | 6 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 10 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 14 | | | | | | | | | |

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| Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times. | CLIENT: NSTAR PROJECT NAME: NSTAR New Bedford Service Center CITY/STATE: New Bedford, MA GEI PROJECT NUMBER: 10092-0 |  GEI Consultants, Inc. 400 Unicorn Park Drive Woburn, MA 01801 781-721-4000 |
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